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THE MEDICAL FORMULARY:

BEING

A COLLECTION OF PRESCRIPTIONS,

DERIVED FROM THE

WRITINGS AND PRACTICE OF MANY OF THE MOST EMINENT PHYSICIANS IN AMERICA AND EUROPE.

TOGETHER WITH THE

USUAL DIETETIC PREPARATIONS AND ANTIDOTES FOR POISONS.

TO WHICH IS ADDED

AN APPENDIX,

ON THE

ENDERMIC USE OF MEDICINES, AND ON THE USE OF ETHER AND CHLOROFORM.

THE WHOLE ACCOMPANIED WITH A FEW BRIEF

PHARMACEUTICAL AND MEDICAL OBSERVATIONS,

BY BENJAMIN ELLIS, M.D.,

LATE PROFESSOR OF MATERIA MEDICA AND PHARMACY IN THE PHILADELPHIA COLLEGE OF PHARMACY.

ELEVENTH EDITION,

CAREFULLY REVISED AND MUCH EXTENDED,

BY ROBERT P. THOMAS, M.D.,

PROFESSOR OF MATERIA MEDICA IN THE PHILADELPHIA COLLEGE OF PHARMACY.

"Morbos autem, non eloquentiâ sed remediis curari."—CELS. DE MED. LIB. I.

PHILADELPHIA:

BLANCHARD AND LEA.

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PHILADELPHIA:

C. SHERMAN, SON AND CO., PRINTERS.

TO

N. CHAPMAN, M.D.,

PROFESSOR OF THE INSTITUTES AND PRACTICE OF MEDICINE AND

CLINICAL PRACTICE

IN THE

University of Pennsylvania,

ETC. ETC.

WHOSE TALENTS AND URBANITY

HAVE RAISED HIM TO THE FIRST RANK IN THE PROFESSION, AND HAVE ACQUIRED

FOR HIM THE CONFIDENCE AND ESTEEM

OF A LARGE AND ENLIGHTENED COMMUNITY,

THIS WORK

IS VERY RESPECTFULLY DEDICATED

BY HIS OBLIGED FRIEND,

THE AUTHOR.

ELLIS'S FORMULARY.

The first and second editions were issued by the author. The third, fourth, fifth, sixth, seventh, eighth and ninth editions were revised by the late Samuel G. Morton, M.D. The tenth and eleventh editions have been issued under the editorial charge of Robert P. Thomas, M.D.

PREFACE BY THE EDITOR.

As the tenth edition of the Formulary has long been out of print, the Editor has been compelled to introduce into this edition a large amount of new matter, in order to bring the work up to the present advanced state of medical science.

Many of the old standard formulas have been retained for their intrinsic merits. Others, which have not been sanctioned by an enlarged experience, have been dismissed. The additions have been made after a careful examination of the current medical and pharmaceutical works and journals; and they also include a number of valuable prescriptions furnished from private sources.

The table of doses has been carefully revised. A large and full index has been prepared to facilitate reference to any particular article the prescriber may wish to administer; and the language of the Formulary throughout has been made to correspond with the nomenclature of the new national Pharmacopœia.

PHILADELPHIA, November, 1863.

PREFACE.

The elegant and judicious formation of prescriptions is one of the difficulties which the young practitioner in medicine is obliged to encounter. While a student, he is compelled, from the circumstances under which he is placed, to confine his attention to the leading principles of the science. Consequently, the minor points (and the art of directing medicines is considered one of them) are postponed to that period when he shall have undertaken the practical duties of his profession.

To obviate, in some measure, the inconvenience which the graduate at first experiences, the volume now offered the public was undertaken and executed. It contains, in a condensed form, and we think advantageously arranged, many of the most important prescriptions employed in modern practice, and which, though most of them may be already recorded, are scattered through various medical works.

The arrangement framed by Professor Chapman for his Therapeutics, appearing to combine greater advantages than any other, we have taken the liberty of adopting it as the basis of this Formulary.

Each Class has been subdivided into Powders, Pills, and Liquids, without any attempt to preserve the different preparations of the same article together, but only with a view to convenience. A few concise rules will be found prefixed to each Class, and observations have been attached to those prescriptions which possess peculiarities either in their composition or effects.

The application of the remedies to diseases has been generally left to the judgment of the practitioner, and therapeutical detail as much as possible avoided, as it would have been inconsistent with the nature and design of the work.

The object is to furnish models for extemporaneous formulas, the proportions of which may be either increased or diminished, according to the age, sex, constitution, or idiosyncrasy of the patient, all of which are to be taken into consideration when a prescription is directed, as well as the climate and peculiar epidemic which may be prevailing.

The prescriptions have been couched in the Latin language, and the names of the several articles will be found regularly terminated. The design was to furnish something like a Medical Grammar to those unacquainted with the dead language; and even those versed in the classics, may occasionally find words used in prescriptions which are new to them.

A series of Dietetic Preparations and the principal Poisons have been placed in Book III. The former are written in the English language, and it is hoped

that they may be found useful in furnishing directions necessary to be given to the nurse.

The latter are those Poisons which are usually taken by accident or design, with their appropriate antidotes and some practical observations.

Appendix No. I contains some concise remarks on the mode of using remedies on the "*Endermic plan*," as well as the quantities employed, and the effects produced by several of the most potent remedial agents.[1]

The materials for the work have been collected from various sources,—the writings of different authors, periodical journals, manuscripts, and the contributions of our friends. It is hoped, therefore, that the difficulties which have attended its progress will form some apology for the errors which it may possibly be found to contain. As a reason for not more frequently attaching the names of authors to the prescriptions, it may be observed that they are a kind of common medical property, which every physician feels himself privileged not only to employ, but modify as may best correspond with his own views. It is, therefore, difficult to say to whom many of them belong: they have been touched and retouched till they have lost their identity.

In conclusion, we beg leave to present our acknowledgments to some of our friends for the encourage-

[1] Appendix No. II is a concise and able article on the use of Ether and Chloroform, drawn up by the late Dr. Morton, to which the attention of the reader is directed.

ment they have given to the undertaking. To Dr. Chapman we are particularly indebted for the kindness and interest he has manifested in its publication, and offer to him (the only return we can make) our warmest thanks.

It is with particular pleasure we embrace this opportunity of expressing our obligations to our friend Dr. S. G. Morton, whose intimate acquaintance with the subject, and classical knowledge, are only equalled by the kindness and industry he has displayed in facilitating the work.

There are others whose names it would gratify us to mention, but who, we know, will be more pleased by our silence. The countenance they gave us on the present occasion has only increased the debt previously incurred.

B. E.

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INTRODUCTION.

Before entering upon the main object of this work, it is necessary to notice a few circumstances which pertain more especially to Pharmaceutic Chemistry, yet appear to be called for in this place; and, though they are familiar to every educated physician, may be useful to the student who has not yet turned his attention to prescriptions.

In the first place, it is requisite to be well acquainted with the *signs of quantity*, or those symbolic characters which are used in writing prescriptions. In the ancient practice of medicine, there were very many of these symbols, not only for the purpose of denoting the quantity of the ingredient, but the ingredient itself. Most of these, however, have become obsolete; and a few only are retained as indispensable to the convenience of the practitioner. These will be found in the following table, which is adopted in the Pharmacopœias for the regulation of *weights*.

English Name.	Latin Name.	Symbol.	Contains.
A pound,	Libra,	℔,	12 ounces.
An ounce,	Uncia,	℥,	8 drachms.
A drachm,	Drachma,	ʒ,	3 scruples.
A scruple,	Scrupulus,	℈,	20 grains.

In the manipulation of *liquid substances*, *measures* have, in most countries, superseded the use of *weights*. Particular names and symbols are given to the parts forming a gallon, in order to prevent their being confounded with those denoting weights; as in the following table:

English Name.	Latin Name.	Symbol.	Contains.
A gallon,	Congius,	C, or Cong.	8 pints.
A pint,	Octarius,	O,	16 fluidounces.
A fluidounce,	Fluiduncia,	f℥,	8 fluidrachms.
A fluidrachm,	Fluidrachma,	f℈,	60 minims (♏).

The *minims* used in the table have been adopted in the United States Pharmacopœia in place of *drops*; and although we have only partially employed this measure in our prescriptions, yet we can readily perceive it to possess some important advantages over the ancient practice. The symbol (♏) is sometimes used by medical writers, though very improperly, to denote both minims and drops. The size of a drop varies according to the greater or less fluidity and gravity of the liquid, and the shape of the vessel from which it is dropped; but, as a general rule, we cannot do better on these occasions than use a small vial with a thin edge. Dr. Dorsey observes that, whenever great precision is necessary, it is easy to dilute the active medicine, and give it in the form of a mixture.

Elias Durand, Prof. Procter, and Edward Parrish, of this city, have made various experiments to ascer-

tain *the number of drops of different liquids equivalent to a fluidrachm;* and the results, which are of practical importance, are partly given in the following table:

	Drops.
Acid, acetic (crystallizable),	120
Acid, hydrocyanic (medicinal),	45
Acid, muriatic,	54
Acid, nitric,	84
Acid, sulphuric,	90
Acid, sulphuric, aromatic,	120
Alcohol (rectified spirit),	138
Alcohol, diluted (proof spirit),	120
Arsenite of potassa, solution of,	57
Chloroform,	200–260
Ether, sulphuric,	150
The essential oils,	90–110
Syrup of acacia,	58
Syrup of squill,	88
Tincture of assafetida, of foxglove, of guaiac, of opium,	120
Tincture of chloride of iron,	132–150
Vinegar, distilled,	78
Vinegar of colchicum,	78
Vinegar of opium (Black Drop),	78
Vinegar of squills,	78
Water, distilled,	45
Water of ammonia (strong),	54
Water of ammonia (weak),	45
Wine, Teneriffe,	78
Wine, antimonial,	72
Wine of colchicum,	75
Wine of opium,	78

Now it is evident from the preceding facts, that in giving one hundred and fifty drops of sulphuric ether (and proximately of any ethereal tincture), we give but a fluidrachm; whereas, the same number of drops of medicinal hydrocyanic acid (one of the most poisonous preparations of the Materia Medica), would be equal to something more than three fluidrachms. The same remark, it will be observed, is applicable to various other preparations, which suggests a caution in rapidly increasing the dose of such medicines by drops.

Whenever a *tablespoonful* of any liquid is ordered, it is considered to be equal to *half an ounce* by measure; and in the same way a *teaspoonful* is used for a *fluidrachm*. These measures are sufficiently accurate where no great precision is requisite.

The prescriptions contained in this work are given in the Latin language, without other abbreviations than those in common use to denote the *quantity* of an ingredient. The directions for the administration of medicines are expressed in English.

Prescriptions, as usually sent to the apothecaries, are much abbreviated, and the same course may be pursued with regard to those contained in this collection. For the information of students who have not been in the practice of writing prescriptions, a Table of Abbreviations is subjoined.

TABLE OF ABBREVIATIONS.

Abbreviation.	Latin Word.	English Word.
āā.	Ana,[1]	Of each.
Ad saturand.	Ad saturandum,	Until saturated.
Ad lib.	Ad libitum,	At pleasure.
Aq. tepid.	Aqua tepida,	Warm water.
Aq. ferv.	Aqua fervens.	Hot water.
C.	Congius,	A gallon.
Chart.	Chartula,	A small paper.
Coch.	Cochlear,	A spoonful.
Coch. mag.	Cochlear magnum,	A tablespoonful.
Coch. parv.	Cochlear parvum,	A teaspoonful.
Colent.	Colentur,	Let them be strained.
Collyr.	Collyrium,	An eye-water.
Contus.	Contusus,	Bruised or broken.
F. vel Ft.	Fiat, vel fiant,	Let there be made.
Fol.	Folium, vel folia,	A leaf, or leaves.
Garg.	Gargarysma,	A gargle.
Gr.	Granum, vel grana,	A grain, or grains.
Gtt.	Gutta, vel guttæ,	A drop, or drops.
Haust.	Haustus,	A draught.
Infus.	Infusum,	An infusion.
M.	Misce,	Mix.
Mass.	Massa,	A mass.
Mist.	Mistura,	A mixture.
O.	Octarius,	A pint.
Pil.	Pilula, vel pilulæ,	A pill, or pills.
Pulv.	Pulvis, vel pulveres,	A powder, or powders.
Q. S.	Quantum sufficit,	A sufficient quantity.
℞.	Recipe,	Take.
Rad.	Radix,	A root.
S.	Signa,	Write.
Ss.	Semis,	The half.
Tinct.	Tinctura,	A tincture.

The *doses* throughout this work are applicable to adult age, unless the contrary is specified.

For the convenience of young practitioners, the

[1] This is not properly a Latin word, but the Greek preposition ἀνά.

rules furnished by Gaubius and Dr. Young, for ascertaining the proper doses of medicines for children, are given below.

Gaubius takes the dose for an adult as unity, and for other ages, as follows:

One year old, . .	$\frac{1}{13}$	Seven years old, . .	$\frac{1}{3}$
Two years old, . .	$\frac{1}{8}$	Fourteen years old, .	$\frac{1}{2}$
Three years old, .	$\frac{1}{6}$	Twenty years old,. .	$\frac{2}{3}$
Four years old, . .	$\frac{1}{4}$	From 20 to 60 years old,	1

Dr. Young says: "For children under twelve years, the doses of most medicines must be diminished in the proportion of the age, to the age increased by 12." Thus, for a child of two years,—2 : 2+12 : : the adult dose, or 1 : to the child's dose, or 7. Or, to state it more simply, $\frac{2}{2+12}=\frac{1}{7}$. Hence,

For one year, $\frac{1}{1+12}=\frac{1}{13}$

" two years, $\frac{2}{2+12}=\frac{1}{7}$

" three " $\frac{3}{3+12}=\frac{1}{5}$

" four " $\frac{4}{4+12}=\frac{1}{4}$

" six " $\frac{6}{6+12}=\frac{1}{3}$

&c., &c.

At twelve, the dose is one-half that of the adult.

TABLE OF THE DOSES OF MEDICINES,

ARRANGED IN ALPHABETICAL ORDER.

In preparing the following Table, a great object has been to present, at a glance, the minimum and medium doses of each medicine; or, as sometimes happens in respect to the more familiar articles, the ordinary dose, as in many of the infusions and tinctures. It is necessary to premise that these preparations are adapted to adult age; nor can any precise rule be laid down which will be applicable to all the periods of life between that period and early infancy. Nothing but the cautious observation and judgment of the physician can possibly supply this deficiency. The best mode of giving active medicines to infants is in solution or suspension, so that the dose may be readily and safely graduated in reference to age, constitution, and disease. As the same medicine will sometimes be found in several different classes of the Materia Medica, its dose must be varied accordingly. Thus, ipecacuanha is both an emetic and diaphoretic, and the large dose we give for the former indication would not bear the necessary repetition for the second. Calomel is purgative and alterative; but in the table we only give the dose necessary to produce the first of these effects; and so also of many other medicines.

Here again the formulas, as given under the several Classes, provide the necessary information in detail.

We would also impress upon every practitioner, the vital importance of knowing the properties and strength of a medicine before prescribing it; and this caution is especially requisite in directing those preparations which, in an overdose, produce distressing and sometimes fatal effects. No prescription of this kind should ever be copied at random, and without first satisfying one's self, by a little calculation, whether the proportions directed in it are safe and consistent; and we would farther insist that the use of every poisonous medicine should be commenced in a *minimum* dose, and gradually increased according to its effects on the system. It is often necessary, also, in these instances, to put the patient on his guard in case any inordinate or unusual symptoms should arise, with a request that the prescription, in such contingency, may be taken in less quantity, at longer intervals, or discontinued. This precaution is all-important, for example, in the administration of alterative doses of the mercurial preparations; for the same quantity that would have little or no effect on one person, might, and often does, produce a violent and deleterious effect on another. This remark is also equally applicable to the whole class of narcotic medicines.

In truth, nothing but *habitual circumspection* in prescribing medicines, can render this art beneficial to the patient or honorable to the physician.

TABULAR VIEW

OF THE

DOSES OF THE PRINCIPAL ARTICLES OF THE MATERIA MEDICA.

Absinthium, ℈j. ad ij.
Acetonum, gtt. x. ad xxx.
Acetum, f℥j. ad iv.
Acidum Arseniosum, gr. $\frac{1}{12}$.
——— Benzoicum, gr. x. ad xx.
——— Boracicum, gr. v. ad x.
——— Gallicum, gr. v. ad x.
——— Hydrocyanicum Dilutum, gtt. j. ad ij.
——— Muriaticum Dilutum, gtt. xx.
——— Nitricum Dilutum, gtt. x. ad xx.
——— Nitro-muriaticum Dilutum, gtt. x. ad xv.
——— Phosphoricum Dilutum, gtt. xv. ad xxx.
——— Sulphuricum Dilutum, gtt. x. ad xx.
——— Sulphuricum Aromaticum, gtt. x. ad xx.
——— Tannicum, gr. ij. ad vj.
——— Tartaricum, ℥j.
Aconiti Folium, gr. j. ad ij.
———, Extractum Alcoholicum, gr. $\frac{1}{2}$.
——— Folii, Tinctura, gtt. x. ad xx.
——— Radicis, Tinctura, gtt. iv. ad viij.
Æther, gtt. l. ad f℥j.
———, Spiritus Compositus, f℥j.
Ætheris Nitrosi, Spiritus, f℥j.
Allium, ℥ss. ad ℥j.
Allii, Succus, f℥ss.
——, Syrupus, f℥j. ad ij.
Aloe, gr. x. ad xx.
Aloe et Canella, gr. v. ad xx.
Aloës, Tinctura, f℥ss.
——, Vinum, f℥j. ad f℥ss.
Alumen, gr. x. ad xx.
——— Exsiccatum, gr. v. ad x.
Ammoniæ Acetatis, Liquor, f℥ss. ad j.
——— Carbonas, gr. v. ad x.
——— Phosphas, gr. x. ad xx.
——— Murias, gr. v. ad xv.
——— Aromaticus, Spiritus, gtt. xx. ad f℥j.
Ammoniacum, gr. x. ad xx.
Ammoniaci, Mistura, f℥ss.
Angustura, gr. x. ad xx.
Angusturæ, Infusum, f℥ij.
Anthemis, ℥ss. ad j.
Anthemidis, Infusum, f℥j. ad ij.
Antimonium Sulphuratum, gr. j. ad v.
Antimonii, Oxidum, gr. iij. ad v.
——— Oxysulphuretum, gr. ss. ad ij.
——— et Potassæ Tartras, gr. $\frac{1}{6}$ ad j.
———, Vinum, gtt. x. ad f℥j.
Antimonialis, Pulvis, gr. iij. ad x.

Apocynum, gr. x. ad xxx.
Argenti Nitras, gr. ¼ ad ½.
——— Cyanidum, gr. $\frac{1}{12}$.
——— Iodidum, gr. ½ ad j.
——— Oxidum, gr. ½.
Arnica, gr. v. ad xx.
Arnicæ, Extractum Alcoholicum, gr. ij. ad v.
———, Tinctura, gtt. xx. ad fʒj.
Arseniosum, Acidum, gr. $\frac{1}{12}$.
Arsenici Iodidum, gr. $\frac{1}{12}$ ad ¼.
Arsenici et Hydrargyri Iodidi, Liquor, gtt. v. ad x.
Potassæ Arsenitis, Liquor, gtt. x.
Asclepias Tuberosa, gr. xx. ad ʒj.
Assafœtida, gr. iij. ad x.
Assafœtidæ, Mistura, fʒss.
———, Tinctura, fʒj.
Atropia, gr. $\frac{1}{100}$ ad $\frac{1}{60}$.
Atropiæ Sulphas, gr. $\frac{1}{80}$ ad $\frac{1}{50}$.
Auri Sales, gr. $\frac{1}{18}$ ad $\frac{1}{10}$.

Balsamum Peruvianum, fʒss.
——— Tolutanum, gr. x. ad xxx.
Tolutanus, Syrupus, fʒss.
Tolutana, Tinctura, fʒj.
Barii Chloridi, Liquor, gtt. v.
Bebeerinæ Sulphas, gr. iij. ad xx.
Belladonnæ, Folium, gr. j.
——— Extractum, gr. ¼.
———, Extractum Alcoholicum, gr. ½.
———, Tinctura, gtt. x. ad xx.
Benzoinum, gr. v. ad x.
Benzoini Composita, Tinctura, fʒss. ad j.
Bismuthi Subcarbonas, gr. iij. ad x.
——— Subnitras, gr. iij. ad x.
Brominium, gtt. $\frac{1}{7}$ ad ¼.
Brucia, gr. ⅛.
Buchu, gr. xx. ad xxx.
——, Extractum Fluidum, fʒss. ad j.
——, Infusum, fʒij.
Cahinca, ℈j. ad ʒj.
Calamus, ℈j. ad ʒj.
Calcis, Liquor, fʒss. ad ij.
Calcii Chloridi, Liquor, gtt. xxx. ad fʒj.
Calx Chlorinata, gr. iij. ad vj.
Creta Præparata, gr. x. ad xxx.
Testa Præparata, gr. x. ad xxx.
Camphora, gr. ij. ad x.
Camphoræ, Aqua, fʒss.
———, Spiritus, gtt. v. ad xx.
Canella, gr. x. ad xxx.
Cannabis, Extractum Purificatum, gr. ¼ ad j.
———, Tinctura, gtt. x. ad xl.
Cantharis, gr. j. ad ij.
Cantharidis, Tinctura, gtt. x. ad xx.
Capsicum, gr. v. ad x.
Capsici, Tinctura, fʒss.
Cardamomum, gr. x. ad xxx.
Cardamomi, Tinctura, fʒj.
———, Tinctura Composita, fʒj.
Carum, gr. xx. ad xl.
Caryophyllus, gr. v. ad x.
Caryophylli Oleum, gtt. ij.
Cascarilla, gr. xx. ad xxx.
Castoreum, gr. x. ad xx.
Castorei Tinctura, gtt. xx. ad l.
Catechu, gr. x ad xxx.
———, Tinctura, fʒj. ad ij.
Cerevisiæ Fermentum, fʒss. ad ij.
Cetrariæ, Decoctum, fʒij.
Chenopodium, ℈j. ad ij.
Chenopodii, Oleum, gtt. v. ad x.
Chimaphilæ, Decoctum, fʒij.
Chloroformum, gtt. x. ad xxx.
Chondri, Decoctum, ad libitum.
Cimicifuga, ℈j. ad ʒj.
Cimicifugæ, Extractum Fluidum, ♏ xx. ad xl.
Cinchona, gr. x. ad xx.
Cinchonæ, Extractum, gr. x.
———, Extractum Fluidum, ♏ xx. ad fʒj.
———, Tinctura, fʒj. ad iv.

Cinchonæ, Tinctura Composita, f℥j. ad iv.
——— Flavæ, vel Rubræ, Decoctum, f℥j. ad ij.
——— Flavæ, vel Rubræ, Infusum, f℥j. ad ij.
Cinchoniæ Sulphas, gr. ij. ad x.
Cinnamomum, gr. x. ad xx.
Cinnamomi, Aqua, f℥ss.
———, Oleum, gtt. j. ad ij.
———, Spiritus, gtt. x. ad xxx.
———, Tinctura, f℥j. ad ij.
Coccus, gr. j. ad x.
Colchici, Radix, gr. ij. ad vj.
——— Semen, gr. ij. ad vj.
——— Tinctura, f℥ss. ad j.
——— Acetum, f℥ss. ad j.
——— Extractum Aceticum, gr. j.
——— Radicis, Vinum, gtt. x. ad xx.
——— Radicis, Extractum Fluidum, ♏ij. ad v.
——— Seminis, Vinum, f℥j.
——— Seminis, Extractum Fluidum, ♏ij. ad vj.
Colocynthis, gr. v. ad x.
Colocynthidis, Extractum Compositum, gr. x.
Calumba, gr. x. ad xx.
Calumbæ, Infusum, f℥ij.
———, Tinctura, f℥j. ad iv.
Conii Folium, gr. iij.
——, Extractum, gr. ij.
——, Extractum Alcoholicum, gr. ij. ad v.
——, Extractum Fluidum, gtt. v.
——, Tinctura, gtt. xx. ad xxx.
Copaiba, f℥j.
Copaibæ, Oleum, gtt. x. ad xv.
Coptis, gr. x. ad xxx.
Coriandrum, ℈j. ad ℥j.
Cornus Florida, gr. xx. ad xxx.
Creasotum, gtt. j.
Creta Præparata, gr. xv. ad ℥j.
Crocus, gr. x. ad xx.
Cubeba, ℥ss. ad iij.
Cubebæ, Oleoresina, ♏x. ad xxx.
———, Oleum, gtt. x. ad xij.
Cubebæ, Tinctura, f℥j.
Cuprum Ammoniatum, gr. ¼ ad ½.
Cupri Sulphas, gr. ¼ ad ij.

Dippel's Animal Oil, gtt. v. ad x.
Digitalis, gr. j. ad iij.
———, Extractum Alcoholicum, gr. ½ ad j.
———, Infusum, f℥ij. ad iv.
———, Tinctura, gtt. x.
Digitalin, gr. $\frac{1}{40}$.
Donovan's Solution, gtt. v. ad xx.
Dover's Powder, gr. x.
Dracontium, gr. x. ad xx.
Dulcamara, ℥ss. ad j.
Dulcamaræ, Decoctum, f℥ij.
——— Extractum, gr. v. ad x.
——— Extractum Fluidum, f℥ss. ad j.

Elaterium, gr. ⅛.
Elaterin, gr. $\frac{1}{16}$.
Ergota, gr. xx.
Ergotæ, Vinum, f℥j. ad ij.
———, Extractum Fluidum, f℥ss. ad j.
Ether, gtt. l. ad f℥j.
Eupatorii, Infusum, f℥ij.
Extractum Cannabis, gr. ¼ ad ½.

Fel Bovinum, gr. v. ad x.
Ferri Chloridi, Tinctura, gtt. x. ad xxv.
—— Citras, gr. v. ad x.
—— et Ammoniæ Citras, gr. v.
—— et Ammoniæ Sulphas, gr. v.
—— et Ammoniæ Tartras, gr. v.
—— et Potassæ Tartras, gr. x ad xx.
—— et Quiniæ Citras, gr. v.
—— Ferrocyanidum, gr. iij. ad v.
—— Iodidi, Syrupus, gtt. x. ad xl.
—— Lactas, gr. j. ad iij.
—— Nitratis, Liquor, gtt. viij. ad x.
—— Phosphas, gr. v. ad x.
—— Pyrophosphas, gr. iij. ad x.
—— Subcarbonas, gr. x. ad ℥ij.

Ferri, Carbonatis, Pilulæ, gr. iij. ad v.
—— Sulphas Exsiccata, gr. ij. ad v.
—— Valerianas, gr. j.
—— Vinum, f℥ss.
Ferrum Ammoniatum, gr. v. ad x.
——— Redactum, gr. ij. ad v.
Filix Mas, ℥j. ad ij.
Fœniculum, ℈j. ad ℥ss.
Fœniculi, Aqua, f℥ss.
Fowler's Solution, gtt. x.

Galla, gr. x. ad xx.
Gambogia, gr. ij. ad iij.
Gaultheriæ, Oleum, gtt. ij. ad v.
Gentiana, gr. x. ad xxx.
Gentianæ, Extractum, gr. v. ad x.
————, Extractum Fluidum, f℥ss.
————, Composita, Tinctura, f℥j. ad ij.
Gillenia, gr. xx. ad xxx.
Granati Fructûs Cortex, gr. xx. ad xxx.
Guaiaci Resina, gr. x. ad xx.
———, Tinctura, f℥j.
——— Ammoniata, Tinctura, f℥j.

Hæmatoxyli, Extractum, gr. x. ad xx.
———— Decoctum, f℥j. ad ij.
Helleborus, gr. v. ad xv.
Hellebori, Extractum Alcoholicum, gr. v. ad x
———–, Tinctura, gtt. xxx. ad f℥j.
Hoffmann's Anodyne, f℥j.
Hordei, Decoctum, ad libitum.
Humuli, Tinctura, f℥ij.
Hydrargyri Chloridum Corrosivum, gr. $\frac{1}{12}$ ad $\frac{1}{8}$.
———— Chloridum Mite, gr. $\frac{1}{20}$ ad j. as an alterative, gr. v. ad xv. as a purgative.
———— Cyanidum, gr $\frac{1}{16}$ ad $\frac{1}{8}$.
Hydrargyri Iodidum Viride, gr. $\frac{1}{2}$ ad ij.
———— Iodidum Rubrum, gr. $\frac{1}{16}$.
———— Oxidum Nigrum, gr. $\frac{1}{8}$ ad iij.
———— Sulphas Flava, gr. $\frac{1}{4}$ ad v.
———— Sulphuretum Nigrum, gr. v. ad x.
———— Sulphuretum Rubrum, gr. x.
Hydrargyrum cum Creta, gr. v. ad x.
———— cum Magnesia, gr. v. ad x.
Hyoscyami Folium, gr. v. ad x.
————, Extractum, gr. ij.
————, Extractum Fluidum, gtt. v. ad x.
————, Tinctura, f℥ss. ad j.

Ignatiæ, Extractum Alcoholicum, gr. $\frac{1}{4}$ ad $\frac{1}{2}$.
Inula, ℈j. ad ℥j.
Iodinium, gr. $\frac{1}{4}$ ad j.
Iodinii, Tinctura, gtt. v. ad x.
——— Composita, Tinctura, gtt. x. ad xx.
——— Compositus, Liquor, gtt. v. ad x.
Ipecacuanha, gr. ij. ad xx.
Ipecacuanhæ, Syrupus, f℥j. ad ij.
———— Extractum Fluidum, gtt. x. ad xxx.
————, Vinum, f℥j.
Ipecacuanhæ et Opii, Pulvis, gr. x.

Jalapa, gr. x. ad xx.
Jalapæ, Extractum, gr. v. ad x.
———, Resina, gr. j. ad iij.
———, Tinctura, f℥j. ad ij.
Juglandis, Extractum, gr. xx.
Juniperi, Baccæ, ℥j. ad ij.
————, Oleum, gtt. v. ad xv.
————, Compositus, Spiritus, f℥j. ad iv.

Kino, gr. x. ad xx.

Kino, Tinctura, f℥j. ad ij.
Kousso, Flores, ℥ss.
Krameria, gr. xx. ad xxx.
Krameriæ, Extractum, gr. x. ad xx.
———, Syrupus, f℥j. ad iv.
———, Tinctura, f℥j.

Lactucarium, gr. iij. ad x.
Lactucarii, Syrupus, f℥j.
Lappa, ℥j.
Lauro-Cerasi, Aqua, f℥ss. ad j.
Lavandulæ, Oleum, gtt. ij. ad v.
———, Compositus, Spiritus, f℥j.
Liriodendron, ℥ss. ad ij.
Lobelia, gr. v. ad x.
Lobeliæ, Tinctura, gtt. xx. ad f℥j.
———, Acetum, gtt. xx. ad xxx.
Lugol's Solution, gtt. v. ad x.
Lupulina, gr. v. ad x.
Lupulinæ, Tinctura, f℥j.
———, Extractum Fluidum, gtt. v. ad x.
———, Oleoresina, gr. j. ad iij.

Magnesia, ℥ss. ad j.
Magnesiæ Carbonas, ℥ss. ad j.
——— Citratis, Liquor, f℥iv. ad xij.
——— Sulphas, ℥j.
Magnolia, ℥ss. ad j.
Manganesii Oxidum, gr. iij. ad x.
——— Iodidi, Liquor, gtt. x. ad xx.
——— Sulphas, ℈j. ad ℥ij.
Manna, ℥ss. ad j.
Mannite, ℥j.
Matico, ℥ss. ad ij.
Matricaria, ℥ss. ad j.
Menthæ Piperitæ, Oleum, gtt. j. ad ij.
———, Spiritus, gtt. x. ad xx.
———, Aqua, f℥ss.
Menthæ Viridis, Aqua, f℥ss.
———, Spiritus, gtt. x. ad xx.
Mezerei, Decoctum, f℥ij.
Mistura Cretæ, f℥ss. ad j.
Monardæ, Oleum, gtt. j. ad iij.
Morphiæ Acetas, gr. $\frac{1}{6}$ ad $\frac{1}{4}$.
——— Murias, gr. $\frac{1}{6}$ ad $\frac{1}{4}$.
——— Sulphas, gr. $\frac{1}{6}$ ad $\frac{1}{4}$.
——— Sulphatis, Liquor, f℥j. ad ij.
Moschus, gr. x.
Mucunæ, Electuarium, ℥j. ad ℥ss.
Myrrha, gr. x. ad xx.
Myrrhæ, Tinctura, f℥ss. ad j.

Naphthalina, gr. ij. ad xv.
Nucis Vomicæ, Extractum Alcoholicum, gr. ss. ad j.
——— Tinctura, gtt. v. ad xx.
Nux Vomica, gr. iij. ad v.

Oleum Amygdalæ Amaræ, gtt. $\frac{1}{4}$.
——— Anisi, gtt. ij. ad v.
——— Cajuputi, gtt. ij. ad v.
——— Erigerontis Canadensis, gtt. v. ad x.
——— Limonis, gtt. ij. ad iv.
——— Morrhuæ, f℥ss.
——— Olivæ, f℥j.
——— Pimentæ, gtt. ij. ad v.
——— Ricini, f℥j.
——— Rosmarini, gtt. ij. ad iij.
——— Rutæ, gtt. ij. ad iij.
——— Sabinæ, gtt. ij. ad iij.
——— Sassafras, gtt. iv. ad vj.
——— Succini Rectificatum, gtt. v. ad x.
——— Terebinthinæ, gtt. x. ad f℥ij.
——— Tiglii, gtt. $\frac{1}{2}$ ad ij.
Opium, gr. j.
Opii, Acetum, gtt. x.
———, Confectio, gr. x. ad xx.
———, Extractum, gr. ss.
———, Tinctura, gtt. xx. ad xxv.
——— Acetata, Tinctura, gtt. xx.
——— Camphorata, Tinctura, f℥j. ad ij.
———, Deodorata, Tinctura, gtt. xx. ad xxx.
———, Vinum, gtt. xx. ad xxv.

Pareira, ʒss. ad j.
Petroleum, ʒss. ad j.
Phloridzin, gr. x. ad xij.
Piperis, Oleoresina, gtt. j. ad iij.
Pix Liquida, ʒss. ad j.
Plumbi Acetas, gr. j. ad iij.
——— Iodidum, gr. ss. ad iij.
——— Nitras, gr. ¼ ad ½.
Podophylli, Extractum, gr. v. ad xv.
————, Resina (Podophyllin), gr. ¼ ad j.
Potassæ, Liquor, gtt. x. ad xx.
——— Arsenitis, Liquor, gtt. x.
——— Acetas, gr. x. ad xx.
——— Bitartras, ʒj. ad ij.
——— Carbonas Pura, gr. x.
——— Bicarbonas, gr. x. ad ʒss.
——— Chloras, gr. x. ad xx.
——— Citras, gr. xx. ad xxv.
——— Citratis, Liquor, fʒss.
——— Nitras, gr. x. ad xv.
——— Sulphas, ʒss. ad j.
——— Tartras, ʒj. ad ʒss.
Potassii Bromidum, gr. iij. ad x.
——— Cyanidum, gr. ⅛ ad ¼.
——— Ferrocyanidum, gr. x. ad xv.
——— Iodidum, gr. iij. ad x.
——— Sulphuretum, gr. ij. ad vj.
Prunus Virginiana, ʒss. ad j.
Pruni Virginianæ, Infusum, fʒij.
—— Extractum Fluidum, fʒss. ad j.
——, Syrupus, fʒss.
Pulvis Aromaticus, gr. x. ad xx.
——— Doveri, gr. x.

Quassiæ, Extractum, gr. ij. ad v.
———, Tinctura, fʒj. ad ij.
Quercus Alba, et Q. Tinctoria, gr. xx. ad ʒj.
Quiniæ Sulphas, gr. j. ad x.
——— Valerianas, gr. j. ad v.
——— et Ferri Citras, gr. iij. ad v.

Rhamni Syrupus, fʒss.
Rheum, ℈j. ad ʒss.
Rhei, Fluidum Extractum, fʒss.
Rhei, Extractum Alcoholicum, gr. v. ad x.
—— Aromaticus Syrupus, fʒj. ad iv.
——, Tinctura, fʒss.
——, Vinum, fʒij.
Rubia, ℈j. ad ʒss.
Rubus Villosus, et R. Canadensis, ℈j. ad ʒss.

Sabbatia, ʒss. ad j.
Sabina, gr. v. ad x.
Sabinæ Oleum, gtt. ij. ad iij.
Salicin, gr. ij. ad x.
Sanguinariæ, Tinctura, fʒss. ad j.
————, Acetum, gtt. xx. ad xxx.
Sanguinarinæ Sulphas, gr. $\frac{1}{12}$ ad ¼.
Santonin, gr. j. ad iij.
Sarsaparillæ, Extractum, gr. x. ad xx.
———— Fluidum, Extractum, fʒj.
———— Compositum Decoctum, fʒj. ad ij.
———— Compositus, Syrupus, fʒss.
Scammonium, gr. v. ad xv.
Scammonii, Resina, gr. ij. ad vj.
Scilla, gr. j. ad ij.
Scillæ, Acetum, fʒss. ad j.
——, Syrupus, fʒj.
—— Compositus, Syrupus, fʒss. ad j.
——, Tinctura, gtt. x. ad xl.
Senega, gr. x. ad xx.
Senegæ, Syrupus, fʒj. ad ij.
——— Extractum Alcoholicum, gr. j. ad iij.
Senna, ʒss. ad ij.
Sennæ, Confectio, ʒj. ad ij.
——— Fluidum, Extractum, fʒj. ad fʒss.
Serpentaria, gr. x. ad xxx.
Serpentariæ, Tinctura, fʒj.
———— Extractum Fluidum, gtt. x. ad xxx.
Simaruba, ℈j. ad ʒj.
Sinapis (as an emetic), ʒij.

Sodæ Acetas, ℈j. ad ʒj.
—— Boras, ℈j. ad ij.
—— Carbonas, gr. v. ad x.
—— Bicarbonas, gr. x. ad xx.
—— Phosphas, ʒss. ad j.
—— Sulphas, ʒss.
—— et Potassæ Tartras, ʒij. ad ʒss.
Sodii Chloridum, gr. x. ad ʒij.
Spigelia, gr. x. ad ʒj.
Spigeliæ, Extractum Fluidum, gtt. xx. ad fʒj.
———— et Sennæ, Extractum Fluidum, fʒj. ad fʒss.
Spiritus Ætheris Nitrosi, fʒj.
Spiritus Ætheris Compositus, fʒj.
Spiritus Pyroxilicus, gtt. x. ad xl.
Stanni Pulvis, ʒss.
Stramonii, Folium, gr. j. ad ij.
————, Extractum, gr. j.
————, Extractum Alcoholicum, gr. ¼ ad j.
————, Tinctura, gtt. xx. ad xxx.
Strychnia et ejus sales, gr. $\frac{1}{20}$ ad $\frac{1}{12}$.
Styrax, gr. x. ad xx.
Sulphur, ℈j. ad ʒij.
Sulphuris Iodidum, gr. ¼ ad j.

Tabacum, gr. j. ad v.
Tabaci, Vinum, gtt. x. ad xx.
Taraxaci, Extractum, ℈j. ad ʒj.
———— Extractum Fluidum, fʒj.
Terebinthina, ℈j. ad ij.
Testa Præparata, gr. x. ad l.

Ulmi, Infusum, ad libitum.
Uva Ursi, ʒss. ad j.
Uvæ Ursi, Extractum Fluidum, gtt. x. ad fʒj.

Valeriana, ʒss. ad j.
Valerianæ, Extractum Fluidum, fʒss. ad j.
———— Extractum Alcoholicum, gr. iij. ad x.
————, Oleum, gtt. v.
————, Tinctura, fʒj. ad ij.
———— Ammoniata, Tinctura, fʒj.
Veratrum Album, gr. j. ad iij.
———— Viride, gr. j. ad iij.
Veratri Viridis, Extractum Fluidum. gtt. ij. ad v.
———— Tinctura, gtt. v. ad viij.
Veratria, gr. $\frac{1}{12}$ ad ⅛.

Zinci Acetas, gr. j. ad ij.
—— Chloridum, gr. ¼ ad ij.
—— Cyanidum, gr. $\frac{1}{12}$ ad ¼.
—— Oxidum, gr. ij. ad v.
—— Sulphas, gr. j. ad x.
—— Valerianas, gr. ss. ad ij.
Zingiber, gr. x. ad xx.
Zingiberis, Tinctura, fʒj.
———— Extractum Fluidum, gtt. x. ad xx.

BOOK I.

OF

INTERNAL REMEDIES.

CLASS I.

EMETICS.

Emetics are medicines which excite vomiting, independently of any effect arising from the mere quantity of matter introduced into the stomach.

In the administration of Emetics a few simple rules are worthy of attention. Whatever may be the apparent necessity for emptying the stomach, we must take into consideration all the circumstances of the case, and more particularly if there be much arterial excitement with determination to the head; for where these symptoms are present, bloodletting should be sometimes premised.

When it is required, as in cases of poisoning, a full dose of the emetic substance is to be administered; but in the generality of instances, it is better to give it in divided doses, frequently repeated, until the desired effect is produced. In cases of torpor or congestion, it is sometimes requisite to arouse the system by retching or vomiting, which may be done by administering the emetic with only a small quantity of fluid; but when the object is to empty the stomach and duodenum merely, free draughts of tepid water or weak chamomile tea ought to be given as soon as nausea takes place.

When *poisons* have been taken, our object is to evacuate the stomach as speedily as possible, and for this purpose we select an emetic which is prompt in its action. But where the excitability of the stomach is greatly diminished by a *Narcotic*, it is necessary to assist the emetic by the addition of some excitant. When such an effect is caused by opium, the system may be generally rendered susceptible by the use of vinegar, mustard, or ammonia. In these cases, however, the stomach-tube is our best resource.

The evacuation of the stomach may be greatly facilitated by tickling the fauces with a feather, or introducing the point of the finger as far back as possible and titillating the parts. If

7. *Emetic of Common Salt.*

℞. Sodii Chloridi, ℥j.
Signa.—Administer one-half in a teacupful of warm water, and repeat the dose in ten minutes.

Salt frequently proves a prompt and efficient emetic, invigorating rather than depressing the powers of the system.

8. *Powder of Sulphate of Copper.*

℞. Cupri Sulphatis, gr. xij.
Divide in pulveres iv.
Signa.—Give one powder, in sweetened water, every fifteen minutes until vomiting is produced.

This medicine is seldom employed as an emetic except in those cases of poisoning where other articles have failed, or are not at hand. It should be followed by large draughts of warm water. All vegetable astringent infusions are incompatible substances.

9. *Powder of Sulphate of Zinc.*

℞. Zinci Sulphatis, ℥ss.
Divide in pulveres iv.
Signa.—One to be taken in molasses, and followed by a draught of warm water, every fifteen minutes.

This medicine is very prompt in its operation, and is often employed in cases of poisoning. It is also used as a nauseating remedy in phthisis; and both as an emetic and tonic in dyspepsia. The stomach is said to be invigorated, rather than exhausted by its operation.

10. *Powder of Ipecacuanha and Calomel.*

℞. Pulveris Ipecacuanhæ, gr. viij;
Hydrargyri Chloridi Mitis, gr. v.
Misce.

This powder generally proves both emetic and purgative. It is often indicated in the commencement of the eruptive and other diseases of childhood.

11. *Powder of Ipecacuanha and Rhubarb.*

℞. Pulveris Ipecacuanhæ,
Pulveris Rhei, āā ℈j.
Misce.
Signa.—To be taken in syrup.

More or less purging will generally follow the emetic operation of this dose. It is used in congestive and other fevers.

WINES AND TINCTURES.

12. *Wine of Ipecacuanha and Tartarized Antimony.*

℞. Vini Ipecacuanhæ, f℥j;
Antimonii et Potassæ Tartratis, gr. j.
Fiat solutio.
Signa.—A teaspoonful to be taken every ten or fifteen minutes, until vomiting is induced, which may be assisted with tepid drinks.

13. *Antimonial Wine.*

℞. Vini Antimonii, f℥j.
Signa.—A teaspoonful to be taken by a child every ten or fifteen minutes, until free emesis is effected.

If antimonial wine is given for the purpose of producing speedy vomiting, we may safely give half an ounce of it at once. In the croup of infants, twenty drops every fifteen minutes, until the medicine operates, is a safe dose.

14. *Norwood's Tincture of American Hellebore.*

℞. Radicis Veratri Viridis, ℥viij;
Alcoholis, Oj.
Macera per dies decem, vel quatuordecim, et exprime.
Signa.—Dose for an adult, six to eight drops every three hours. To be increased one or two drops each dose, until nausea, vomiting, or a reduction of the frequency of the pulse takes place. Then reduce to one half in all cases.

Dr. Norwood describes this article as a good diaphoretic, a prompt and efficient emetic, and an arterial sedative of the first rank. He recommends its use in hooping cough, croup, inflammation of the lungs, and typhoid fever.—*Southern Med. and Surg. Journal*, Jan. 1853.

SOLUTIONS AND MIXTURES.

15. *Mixture of Tartrate of Antimony.*

℞. Antimonii et Potassæ Tartratis, gr. ij;
Sacchari, ℥j;
Aquæ destillatæ, f℥ij.
Misce, et fiat solutio.
Signa.—A tablespoonful to be given every ten or fifteen minutes, until it vomits freely.

16. *Mixture of Sulphate of Zinc and Alum.*

℞. Zinci Sulphatis, ℥jss;
Aluminis, ℥ss;
Aquæ ferventis, Oss.
Misce, et cola.
Signa.—A tablespoonful for adults, and a teaspoonful for a child of six months old (and so on in proportion to the strength and age of the patient), every morning upon an empty stomach.

This is the celebrated *solutio vitriolica* of Dr. Mosely, who principally employed it in dysentery and phthisis pulmonalis.

17. *Mixture of Emetia.*

℞. Emetiæ impuræ, gr. iv;
Aquæ destillatæ, f℥ij;
Syrupi, f℥ss.
Fiat solutio.
Signa.—Give a dessert-spoonful every half hour.
Emetia is destitute of the peculiar odor and nauseous taste of ipecacuanha, and may therefore be preferable in some cases.

It will be observed that we have introduced the impure or commercial emetia, which is much less energetic than the perfectly white alkaloid. The best antidote for an overdose, is a strong infusion of nutgalls. MAGENDIE.

18. *Mixture of Ipecacuanha, Tartar Emetic and Squill.*

℞. Pulveris Ipecacuanhæ, ℥ss;
Antimonii et Potassæ Tartratis, gr. j;
Tincturæ Scillæ, f℥j;
Aquæ destillatæ, f℥vij.
Fiat mistura.
Signa.—Four tablespoonfuls at first; afterwards two tablespoonfuls every ten minutes until vomiting is induced.

This mixture is recommended in dropsies previously to giving digitalis.

19. *Infusion of Ipecacuanha.*

℞. Pulveris Ipecacuanhæ, ℥ij;
Aquæ bullientis, f℥vj.
Macera per horam unam, in vase leviter clauso, et cola.
Signa.—Of this one or two tablespoonfuls may be given every half hour, until it excites vomiting.

20. *Infusion of Lobelia or Indian Tobacco.*

℞. Lobeliæ, ℥ss ;
Aquæ bullientis, Oj.
Fiat infusio.
Signa.—A small wineglassful may be taken every half hour, until vomiting succeeds.

This remedy is too hazardous and distressing for ordinary use ; but in asthma and some spasmodic affections, much benefit is often experienced. It should, however, be administered with extreme caution.

21. *Compound Syrup of Squills.*

℞. Syrupi Scillæ Compositi, f℥j.
Signa.—Give thirty drops every quarter or half hour, to a child two years old as an emetic ; or ten drops every three hours as an expectorant.

This is an officinal substitute for the *hive syrup* of Dr. Coxe. It has acquired much confidence from its efficacy in croup ; and should it not be sufficiently active in this violent disease, a grain of tartrate of antimony may be added to each fluid ounce.

22. *Mixture of Syrup and Wine of Ipecacuanha.*

℞. Syrupi Ipecacuanhæ, f℥j ;
Vini Ipecacuanhæ, f℥ij.
Signa.—Give a teaspoonful to a child three years old, every fifteen minutes until it proves emetic.

The syrup of ipecacuanha, by itself, is too mild to act as an emetic, being rather designed as an expectorant. But in combination with the wine it provokes free emesis.

CLASS II.

CATHARTICS.

As a general rule it may be observed of cathartics that they are capable of fulfilling three different indications: 1. Simply to evacuate the bowels; 2. To excite an increased discharge from the mucous coat of the intestines; and 3. To stimulate the neighboring viscera, and cause them to secrete a greater quantity of their peculiar fluids. It seldom or perhaps never happens that the same article will produce these three different effects; and in order to accomplish them, we must combine different substances in one formula.

There are some, as magnesia, that produce their effect by absorbing the acid generated in the alimentary canal, and thus becoming converted into a purgative salt. There are others, as aloes, that expend their principal force upon the rectum and large intestines, and for this reason are very advantageously employed in diseases of the lower bowels, and of the uterus and its appendages.

These remedies should always be given on an empty stomach. If administered immediately after a full meal, they arrest the digestive process, are liable to produce nausea, if not vomiting, and do not open the bowels with the same certainty or effect. When simple costiveness is to be removed, the evening may be selected for the exhibition of a cathartic.

If this should not prove sufficient, we can repeat the dose in the morning and at regular intervals through the day until the effect is produced. The principle, says Dr. Paris, which should govern our conduct in the administration of purgatives, may be briefly stated: *The excitement is to be repeated till the requisite action is induced, yet no single excitement being such as may prove an irritant to the organ.*

But in the treatment of many diseases it is preferable to purge through the day, in order that the sleep of the patient may not be disturbed at night.

The operation of these remedies may be very much accelerated by the free exhibition of diluent drinks, such as gruel, barley water, &c. &c.

By combination we are enabled to modify and control the action of many remedies, and some of the most drastic purgatives may be made to operate mildly and certainly by uniting small quantities of several of them in the same dose.

The addition of an emetic substance, such as tartar emetic, or ipecacuanha, in small quantities, gives activity to the combination, while it modifies the harshness of the drastic purgatives.

Finally, the operation of a cathartic may often be promoted by judicious venesection; and if spasm of the intestines be present, opium may be advantageously joined with the purgative.

POWDERS.

23. *Powder of Calomel and Jalap.*

℞. Hydrargyri Chloridi Mitis, gr. v;
Pulveris Jalapæ, gr. x.
Misce.
Signa.—To be given in molasses or syrup.

24. *Powder of Calomel and Rhubarb.*

℞. Hydrargyri Chloridi Mitis,
Pulveris Rhei, āā gr. v;
Olei Cinnamomi, gtt. j.
Misce.
Signa.—To be given in molasses.

25. *Powder of Calomel and Soda.*

℞. Hydrargyri Chloridi Mitis, gr. viij;
Sodæ Bicarbonatis, gr. xij.
Misce.
Signa.—To be given in molasses.

This combination forms a safe and mild purgative. Nausea seldom follows its administration.

26. *Powder of Calomel, Jalap, and Rhubarb.*

℞. Hydrargyri Chloridi Mitis,
Pulveris Jalapæ,
Pulveris Rhei, āā gr. v;
Olei Cinnamomi, gtt. j.
Misce.
Signa.—To be given in syrup or molasses.

27. *Powder of Rhubarb and Magnesia.*

℞. Pulveris Rhei, ℈j;
Magnesiæ, ℈ss;
Olei Cinnamomi, gtt. j.
Misce.
Signa.—To be given in syrup or molasses.

28. *Calcined Magnesia.*

℞. Magnesiæ, ʒj.

℞. Magnesiæ (Henry), ʒj.

℞. Magnesiæ (Husband), ʒj.

℞. Magnesiæ (Ellis), ʒj.

Magnesia is an antacid, and laxative, much used in the diseases of women and children. The lightness and consequent bulk of the officinal powder, constitute serious objections to its use. To obviate these, Henry of England, and Thos. J. Husband, and Charles Ellis & Co. of this city, have severally prepared a heavy magnesia as a substitute. Henry's magnesia has long been favorably known; Husband's and Ellis's are entitled to equal consideration with the imported article, since the experiments of Prof. Procter have shown that, for forming liquid mixtures, and for rapidity of antacid action, they are equal if not preferable to it.

Dose of either, from thirty grains to a drachm, in milk or water. The operation of magnesia, when it meets with no acid in the bowels, is promoted by giving the patient lemonade.

29. *Powder of Jalap and Cream of Tartar.*

℞. Pulveris Jalapæ, ʒj;
Potassæ Bitartratis, ʒvj.
Misce, et divide in pulveres vj.
Signa.—Give one powder every three hours in molasses.

This powder is a hydragogue cathartic. "It constitutes one of the best medicines which I have ever tried, as well in dropsical as in all other cases, where long-continued purging is demanded." N. Chapman.

30. *Compound Powder of Jalap and Gamboge.*

℞. Pulveris Jalapæ Compositi, ʒiij;
Pulveris Gambogiæ, gr. vj.
Misce, et divide in pulveres vj.
Signa.—Give one powder every two hours in molasses or syrup.

The compound powder of jalap has long been celebrated in dropsical affections; but it also forms a very convenient purge in many inflammatory cases. In order to increase its certainty and activity, we may conveniently add gamboge, as in the above formula.

31. *Powder of Sulphur and Cream of Tartar.*

℞. Sulphuris loti, ℥ss;
Potassæ Bitartratis, ℥j.
Misce.
Signa.—Mix in a sufficient quantity of molasses, and give a teaspoonful three or four times a day to children. Used in various diseases of the skin.

It should be always recollected that sulphur promotes insensible perspiration in a very marked degree, and hence renders the patient more liable to be affected by vicissitudes of climate.

32. *Powder of Sulphur and Calcined Magnesia.*

℞. Sulphuris præcipitati,
Magnesiæ, āā ℥ss.
Misce.
Signa.—A teaspoonful to be taken three or four times a day.

This preparation is better adapted to delicate stomachs than the former. Either of them forms a good aperient during an alterative course of medicine. N. CHAPMAN.

33. *Seidlitz Powders.*

℞. Potassæ et Sodæ Tartratis, ℥ij;
Sodæ Bicarbonatis, ℈ij.
Fiat pulvis.
Signa.—To be dissolved in a wineglassful of cold water.

℞. Acidi Tartarici pulverisati, gr. xxxv.
Signa.—Dissolve in a wineglassful of water and mix the two solutions. To be taken while in a state of effervescence.

This is a very popular medicine, and justly so, as it is a gentle aperient, and may be taken by persons whose stomachs would reject any of the ordinary saline preparations.

34. *Soda Powders.*

℞. Sodæ Bicarbonatis, ℥ss.
Signa.—To be dissolved in a wineglassful of cold water.

℞. Acidi Tartarici, gr. xxv.
Signa.—Dissolve in the same quantity of sweetened water, flavored with two drops of essence of lemon.

Mix the two solutions, and drink in a state of effervescence. These effervescing drinks, in addition to their laxative effects, allay thirst, check sickness of stomach, and diminish febrile heat.

35. *Stevens's Saline Powders.*

℞. Sodæ Bicarbonatis, ʒss;
Sodii Chloridi, ℈j;
Potassæ Chloratis, gr. vij.
Misce.

This powder was administered by Dr. Stevens in half a tumblerful of tepid water, or a little thin beef tea, in cholera, and repeated every half hour until the patient recovered from the collapse.

PILLS.

36. *Griffitts's Cathartic Pills.*

℞. Pulveris Jalapæ,
Pulveris Rhei,
Saponis, āā ʒss;
Hydrargyri Chloridi Mitis, gr. xxv;
Antimonii et Potassæ Tartratis, gr. jss;
Aquæ destillatæ, quantum sufficit ut fiat massa.
Divide in pilulas xxv.
Signa.—Two of these pills may be taken at once, and repeated in two hours if not sufficient.

This combination of purgatives with the tartrate of antimony forms an excellent antibilious remedy; and, in cases of fever, prepares the alimentary canal for the reception of other remedies. S. P. Griffitts.

37. *Pills of Blue Mass, Jalap, and Aloes.*

℞. Pilulæ Hydrargyri,
Pulveris Jalapæ,
Pulveris Aloës Socotrinæ, āā gr. xv;
Syrupi, q. s. ut fiat massa.
Divide in pilulas xij.
Signa.—Three may be taken at night, and the same dose be repeated in the morning, if the first is ineffectual.

38. *Pills of Blue Mass, Rhubarb, and Soda.*

℞. Pilulæ Hydrargyri, gr. ix;
Pulveris Rhei;
Sodæ Bicarbonatis, āā gr. xij;
Syrupi Rhei Aromatici, q. s. ut fiat massa, in pilulas xij dividenda.

Signa.—One pill to be taken twice or three times a day, as an alterative, in derangement of the liver.

Jos. Hartshorne.

39. *Pills of Blue Mass and Colocynth.*

℞. Pilulæ Hydrargyri,
Extracti Colocynthidis Compositi, āā gr. v;
Olei Cari, gtt. ij.

Misce, et fiant pilulæ ij.

These constitute an active cathartic.

40. *Pills of Calomel and Colocynth.*

℞. Extracti Colocynthidis Compositi, ℈ij;
Hydrargyri Chloridi Mitis, ℈j.

Misce, et divide in pilulas xx.

Two or three of these pills will generally act as a cathartic.

41. *Pills of Colocynth and Podophyllin.*

℞. Extracti Colocynthidis Compositi, ℥ss;
Resinæ Podophylli, gr. iij.

Misce et divide in pilulas xij.

Signa.—Two pills at bedtime.

This is an excellent substitute for the officinal compound cathartic pill. One pill acts usually as a laxative, and three pills produce free purgation. R. P. Thomas.

42. *Pills of Aloin and Podophyllin.*

℞. Aloin, gr. xxiv;
Resinæ Podophylli, gr. xij;
Oleoresinæ Zingiberis, ♏xiv;

Fiat massa et divide in pilulas xxiv.

Signa.—Dose, one pill as a laxative, two or three pills as a purgative.

"The experience of numerous practitioners here and in Europe confirm the utility of aloin as a mild though pretty certain cathartic in doses of two to three grains."

E. Parrish.

43. *Anti-Gout Pill.*

℞. Extracti Colchici Acetici;
Extracti Colocynthidis Compositi, āā gr. x;
Morphiæ Acetatis, gr. ijss.
Fiat massa in pilulas x dividenda.

This is a useful anti-gout pill, adapted to mitigate an actual paroxysm. One pill should be given every two hours, until the bowels and kidneys are acted on. ROBERT DICK.

44. *Becquerel's Anti-Gout Pill.*

℞. Quiniæ Sulphatis, ℥ij;
Extracti Digitalis Alcoholici, gr. xv;
Extracti Colchici Acetici, ℈ij.
Fiat massa et divide in pilulas l.
Signa.—Take one pill every three hours.

These pills are highly recommended by M. Trousseau, of Paris, in the treatment of gout.

45. *Pills of Extract of Butternut and Jalap.*

℞. Extracti Juglandis, ℥ss;
Pulveris Jalapæ, ℈j;
Saponis, gr. x.
Misce, et fiant pilulæ xv.
Signa.—Three of these may be taken for a dose, and if they do not operate, two more may be safely administered.

The extract of butternut, either alone or in combination, is highly recommended as a cathartic in fevers, dysentery, &c., from its tendency to act on the liver.

46. *Fothergill's Pills.*

℞. Extracti Colocynthidis Compositi, ℥jss;
Antimonii Oxidi, ℥ss.
Misce, et divide in pilulas xxx.
One of these pills will generally produce a free evacuation; but two or more may be taken when required.

During the last century, the antimonial preparations were held in high repute by the London physicians, and this combination of an antimonial with active cathartics is still regarded with favor.

47. *Mitchell's Aperient Pills.*

℞. Pulveris Rhei, ℈iv;
Pulveris Aloës Socotrinæ, ℈ij;
Hydrargyri Chloridi Mitis, gr. iv;
Antimonii et Potassæ Tartratis, gr. ij.
Fiat pulvis, et adde—
Saponis, in pulverem contriti, ℈ij;
Aquæ, q. s. ut fiat massa.
Divide in pilulas xl.
Signa.—Take one pill every night as a laxative, or three pills as a purgative. J. K. Mitchell.

48. *Pills of Elaterium.*

℞. Elaterii, gr. ij;
Extracti Gentianæ, gr. xiv.
Misce, et divide in pilulas xvj.
Signa.—Give one pill every three hours, until free purging takes place.

Elaterin, the active principle of this drug, can now be procured in a state of purity; and as it is more certain in its effects, a formula is subjoined under the head of purgative wines and tinctures.

49. *Pills of Croton Oil.*

℞. Olei Tiglii, gtt. ij;
Micæ Panis, q. s. ut fiant pilulæ iv.
Signa.—One every hour until they operate.

This powerful remedy has lately been restored to the Materia Medica. One drop is a full dose, and frequently less will answer every purpose.

The following is a more certain and less drastic mode of exhibiting the oil.

50. *Pills of Croton Oil and Colocynth.*

℞. Olei Tiglii, gtt. ij;
Extracti Colocynthidis Compositi, gr. x.
Misce, et divide in pilulas iv.
Signa.—Give one pill every two hours, until a purgative effect is produced.

51. *Another Form.*

℞. Extracti Colocynthidis Compositi, gr. l;
Saponis, gr. x;
Olei Tiglii, gtt. ij.
Misce, fiat massa in pilulas xij dividenda.
Signa.—Take one pill occasionally, as a laxative.
Sir B. C. Brodie.

52. *Chapman's Peristaltic Persuaders.*

℞. Pulveris Rhei, ℥j;
Pulveris Ipecacuanhæ, gr. x;
Olei Cari, gtt. x;
Pulveris Acaciæ, q. s. ut fiat massa.
Divide in pilulas xx.
Signa.—Take two pills at bedtime, in obstinate constipation.
N. CHAPMAN.

53. *Chapman's Anti-dyspeptic Pills.*

℞. Pulveris Aloës Socotrinæ;
Mastiches, āā ℥ss;
Pulveris Ipecacuanhæ, gr. x;
Olei Fœniculi. ♏viij.
Fiat massa et divide in pilulas xx.
Signa.—Take one pill every night at bedtime.

These are indicated in cases of dyspepsia attended by habitual constipation. N. CHAPMAN.

54. *Aperient Pills.*

℞. Pulveris Aloës Capensis;
Pulveris Rhei, āā ℥j;
Pulveris Ipecacuanhæ, gr. vj;
Saponis, ℈j;
Aquæ, q. s.
Misce et fiant pilulæ lx.

As a simple aperient, one may be taken every night at bedtime; but where a full purgative effect is desirable, the dose is two or three.

55. *Pills of Aloes and Gentian.*

℞. Pulveris Aloës Capensis, ℥j;
Extracti Gentianæ, ℥ss;
Olei Cari, gtt. x;
Syrupi, q. s. ut fiat massa, in pilulas singulas grana quatuor pendentes, dividenda.
Signa.—Take two or three pills for a dose.

The addition of a tonic increases the purgative action of aloes, and diminishes its tendency to griping.

56. *Pills of Aloes, Guaiac, and Rhubarb.*

℞. Pulveris Guaiaci Resinæ, ℥j;
Pulveris Aloës Capensis, gr. xxxvj;
Pulveris Rhei, ℥ij;
Terebinthinæ Canadensis, quantum sufficit ut fiat massa in pilulas xlviij dividenda.
Signa.—One to be taken every three hours.

This combination forms a highly stimulating cathartic.

57. *Pills of Rhubarb and Sulphate of Iron.*

℞. Pulveris Rhei, ʒjss;
Ferri Sulphatis exsiccatæ, ʒss;
Saponis, ℈ij.
Aquæ destillatæ, q. s. ut fiat massa in pilulas xl dividenda.

The intention of these pills is to remove costiveness, and impart tone to the bowels. Three may be taken for a dose at bedtime. S. P. Griffitts.

58. *Pills of Ox Gall.*

℞. Fellis Bovini inspissati, ʒij;
Olei Cari, gtt. x;
Magnesiæ Carbonatis, q. s. ut fiat massa in pilulas xxxvj dividenda.
Signa.—Take two pills three times daily. Clay.

59. *Another Form.*

℞. Fellis Bovini inspissati, ℈ij;
Pulveris Zingiberis, ℈j.
Fiat massa, in pilulas xx dividenda.
Signa.—Take two pills every night at bedtime.

This preparation has proved highly serviceable in some cases of habitual constipation, with an occasional tendency to bilious colic. Being a feeble cathartic with tonic properties, it may be used for a long time without detriment.

CONFECTIONS AND ELECTUARIES.

60. *Lenitive Electuary and Cream of Tartar.*

℞. Confectionis Sennæ, ʒij;
Confectionis Aurantii Corticis, ʒij;
Potassæ Bitartratis, ʒij.
Misce et fiat electuarium.
Signa.—Take a piece the size of a marble, night and morning. Used in habitual constipation.

61. *Confection of Senna, Sulphur and Nitre.*

℞. Sulphuris loti, ʒjss;
Confectionis Sennæ, ʒij;
Potassæ Nitratis, ʒj;
Syrupi Aurantii Corticis, q. s. ut fiat confectio.
Signa.—One or two drachms to be taken twice a day. Used in hemorrhoidal affections.

62. *Electuary of Senna and Figs.*

℞. Pulveris Sennæ, ℥ss;
Pulpæ Ficus, quantum sufficit ut fiat electuarium.
Signa.—A piece the size of a marble, night and morning, in costiveness.

63. *Electuary of Jalap, Nitre, &c.*

℞. Pulveris Jalapæ,
Potassæ Bitartratis,
Potassæ Nitratis, āā ℥ss;
Confectionis Sennæ, ℥j;
Syrupi, q. s. ut fiat electuarium.
Signa.—A bolus the size of a hazel-nut may be taken three times a day.

This preparation once gained considerable celebrity as a popular remedy for hemorrhoids.

64. *Electuary of Sulphur, Guaiac, &c.*

℞. Sulphuris loti, ℥ij;
Potassæ Bitartratis, ℥j;
Pulveris Guaiaci Resinæ, ℥j;
Pulveris Rhei, ℥ij;
Spiritûs Myristicæ, f℥ij;
Mellis, quantum sufficit, ut fiat electuarium.
Signa.—Take a teaspoonful morning and evening.

This preparation has long been used successfully in England in the treatment of chronic rheumatism.

EMULSIONS AND MIXTURES.

65. *Castor Oil, or "Oleaginous" Mixture.*

℞. Pulveris Acaciæ, ℥iij;
Aquæ, f℥ij.
Tere simul, et adde gradatim—
Olei Ricini, ℥j.
Dein adde,
Aquæ Cinnamomi, f℥j.
Misce secundum artem.
Signa.—Take a tablespoonful every two hours.

This is one of the least disagreeable modes of administering this nauseous but valuable medicine.

66. *Another Form for Children.*

℞. Olei Ricini, ℥ij;
Vitellum unius Ovi;
Aquæ Fœniculi,
Aquæ Menthæ Viridis, āā f℥j.
Fiat emulsio.
Signa.—Give a teaspoonful morning and night to a child three months old.

67. *Mixture of Oil of Turpentine.*

℞. Olei Terebinthinæ, ℥j;
Pulveris Acaciæ,
Sacchari, āā ℥ss;
Aquæ Menthæ Piperitæ, f℥iv.
Misce.
Signa.—A tablespoonful every two hours until it operates.

This preparation must be made in the same manner as the oleaginous mixture.

68. *Another Form.*

℞. Olei Terebinthinæ, ℥j;
Olei Cinnamomi, gtt. iv;
Vitellum unius Ovi.
Tere simul, et adde gradatim—
Misturæ Amygdalæ, f℥iv;
Syrupi Aurantii Corticis, f℥ij.
Misce, et fiat emulsio.
Signa.—Take a tablespoonful every two hours.

69. *Oleaginous Mixture with Oil of Turpentine.*

℞. Olei Ricini, ℥jss;
Vitellum unius Ovi;
Sacchari, ℥ij;
Olei Terebinthinæ, ℥ss;
Aquæ Menthæ Piperitæ, f℥iv.
Misce secundum artem.
Signa.—A large tablespoonful may be taken every hour or two.

This preparation is much used by some of our best practitioners in cases requiring a brisk and stimulating cathartic. It has also been recommended as a purgative after the effects of an overdose of opium have been partially subdued by preliminary remedies. B. Ellis.

70. *Mixture of Croton Oil.*

℞. Olei Tiglii, ♏ij;
Mucilaginis Acaciæ,
Aquæ destillatæ, āā f℥j.
Misce.
Signa.—Take a teaspoonful every two hours until it operates.

71. *Saponaceous Mixture of Croton Oil.*

℞. Olei Tiglii, ♏viij;
Potassæ, gr. vj;
Aquæ destillatæ, f℥ij.
Fiat solutio.
Signa.—From three to six drops may be given for a dose.

This is a substitute for the soap of croton oil proposed by the French, which is more troublesome to make.

Mr. Conweil states that four drops of croton oil rubbed on and around the umbilicus, will produce a cathartic effect; even the odor of it has been known to excite the alimentary canal, either as an emetic or purgative.

72. *Mixture of Extracts of Podophyllum and Leptandra.*

℞. Extracti Podophylli Fluidi (*Thayer*),
Extracti Leptandræ Fluidi (*Thayer*), āā f℥ij;
Syrupi Zingiberis, f℥ss.
Misce.
Signa.—Dose, a teaspoonful.

The mandrake or May apple (Podophyllum peltatum), is the most certain and active of our indigenous cathartics. Culver's root (Leptandra Virginica) is also purgative with a reputed specific tendency to the liver. By a combination of the two, prompt and copious purgation is produced; the action of the remedies, if given in large doses, being attended with nausea and griping unless they are combined with some aromatic or carminative.

73. *Solution of Epsom Salts and Tartar Emetic.*

℞. Magnesiæ Sulphatis, ℥j;
Antimonii et Potassæ Tartratis, gr. ss;
Aquæ destillatæ, f℥iij;
Succi Limonis recentis, f℥j.
Misce, et fiat solutio.
A tablespoonful to be given every two hours until it operates.
Or one half may be taken as a purgative dose.

74. *Solution of Epsom Salts with Jalap and Nitric Acid.*

℞. Magnesiæ Sulphatis, ℥ss;
Tincturæ Jalapæ, f℥j;
Acidi Nitrici, gtt. ij;
Aquæ Menthæ Viridis, f℥ij.
Misce.
Signa.—To be taken for a draught. The nitric acid destroys in part the bitter taste of the salt.

75. *Compound Mixture of Carbonate of Magnesia.*

℞. Magnesiæ Carbonatis, ℥ss;
Magnesiæ Sulphatis, ℥iij;
Spiritûs Ammoniæ Aromatici, f℥j;
Tincturæ Rhei, f℥ss;
Tincturæ Hyoscyami, f℥ss;
Aquæ Menthæ Viridis, f℥iv.
Fiat mistura.
Signa.—A tablespoonful to be taken two or three times a day.

C. D. Meigs.

76. *Mixture of Magnesia and Rhubarb.*

℞. Magnesiæ, ℥ss;
Pulveris Rhei, gr. ij;
Sacchari, ℥j;
Spiritûs Menthæ Piperitæ, gtt. vj;
Aquæ destillatæ, f℥jss.
Fiat mistura.
Signa.—A teaspoonful to be given every two hours to children, until it operates.

This preparation is designed for the bowel complaints of children, in which it is very serviceable. Laudanum can be added according to the age and condition of the patient.

77. *Mixture of Magnesia and Blue Pill.*

℞. Magnesiæ, ℥jss;
Pulveris Acaciæ,
Sacchari, āā ℥ij;
Pilulæ Hydrargyri, gr. viij;
Olei Anisi, gtt. iv;
Aquæ, f℥iv.
Misce.
Signa.—To take a tablespoonful every two hours until it operates freely. An alterative cathartic.

78. *Mixture of Magnesia and Colchicum.*

℞. Magnesiæ, ℥j ;
Sacchari,
Pulveris Acaciæ, āā ℥j ;
Aquæ destillatæ, f℥iv ;
Vini Colchici Radicis, gtt. xl.
Fiat mistura.
Signa.—Take a tablespoonful every two hours until it operates.

This preparation is much used in gouty and rheumatic affections. Laudanum can be added if requisite.

79. *Scudamore's Mixture.*

℞. Magnesiæ, ℈iv ;
Magnesiæ Sulphatis, ℥j ;
Aquæ Menthæ Viridis, f℥v ;
Aceti Colchici, f℥ss ;
Syrupi, f℥j.
Fiat mistura.
Dose, a tablespoonful every two hours. Chiefly used in gouty paroxysms. SIR C. SCUDAMORE.

80. *Acid Solution of Veratria.*

℞. Veratriæ, gr. j ;
Acidi Sulphurici Aromatici, gtt. v ;
Aquæ destillatæ, f℥ij.
Fiat solutio.
Dose, a teaspoonful. This solution is said to be a good substitute for the Eau Medicinale of Husson, in gouty affections. MAGENDIE.

81. *Mixture of Fluid Extract of Butternut.*

℞. Extracti Juglandis Fluidi (*Thayer*), f℥ij ;
Syrupi Zingiberis, f℥ij ;
Aquæ, f℥ss.
Misce.
Signa.—Take one-half as a draught.

The butternut is a mild cathartic, operating usually without pain or griping. It is adapted to cases of habitual constipation.

82. *Purgative Mineral Water.*

℞. Liquoris Magnesiæ Citratis, f℥xij.
Signa.—Take a teacupful every two hours until it operates.

From its resemblance to lemonade in taste, this constitutes one of the most pleasant laxatives now in use. A child five years old, may take a wineglassful as a dose.

The country practitioner can make a good approximation by neutralizing carbonate of magnesia with citric acid, in the proportion of fourteen parts of the former to twenty parts of the latter, and flavoring the solution with lemon syrup.

Half an ounce of the neutral salt of citrate of magnesia constitutes a dose.

83. *Purgative Soda Water.*

℞. Sodæ Carbonatis Crystallisatæ, ℥ix;
Acidi Tartarici, ℥vi;
Aquæ, f℥x;
Syrupi Limonis, f℥jss.
Misce in ampulla vitrea et adjice—
Sodæ Bicarbonatis, ℥ss.
Signa.—To be taken by draughts of a wineglassful every two hours.

Prof. J. Lawrence Smith published a formula for purgative soda water, as prepared by him on a large scale, from which the above is condensed. As a purgative, it is mild and certain, producing watery evacuations.

84. *Fluid Extract of Senna, Ginger, &c.*

℞. Extracti Sennæ fluidi, f℥ij;
Extracti Rhei fluidi, f℥j;
Syrupi Zingiberis, f℥v;
Aquæ, f℥j.
Misce.
Signa.—Dose, a tablespoonful.

This is an efficient mixture, operating without much pain. The dose should be repeated every four hours until a purgative effect is produced.

85. *Mixture of Sulphate of Potassa and Jalap.*

℞. Potassæ Sulphatis, ℥ij;
Aquæ, f℥vss;
Tincturæ Jalapæ, f℥ss.
Fiat solutio.
Signa.—Take a tablespoonful every two hours. A mild purgative, and deobstruent.

INFUSIONS AND DECOCTIONS.

86. *Infusion of Senna and Salts.—Black Draught.*

℞. Sennæ.
Menthæ Viridis. āā ℥ss:
Aquæ bullientis. Oj.
Macera per horam unam, cola, et adde—
Magnesiæ Sulphatis, ℥ij.
Solve.
Signa.—Administer a wineglassful every two hours, until purgation is produced. GUY'S HOSP.

87. *Infusion of Senna, Salts, &c.*

℞. Infusi Sennæ. f℥vj:
Tincturæ Sennæ et Jalapæ (Ph. 1850), f℥ij;
Mannæ. ℥ij:
Magnesiæ Sulphatis. ℥ss;
Aquæ Menthæ Viridis.
Aquæ destillatæ, āā f℥jss.
Misce.
Signa.—One-half to be taken for a dose, and repeated if it does not operate. This was a very common prescription of the late Mr. John Abernethy, of London.

88. *Infusion of Senna and Manna.*

℞. Sennæ, ℥vj:
Mannæ, ℥ss:
Cardamomi. ℥ij;
Aquæ bullientis, f℥viij.
Macera per horam unam et cola.
Signa.—One-half to be taken at a draught; and if insufficient, the remainder in two or three hours.

89. *Decoction of Prunes and Senna.*

℞. Pruni, ℥iij;
Infusi Sennæ, Ojss.
Coque ad Oj. et cola.
Signa.—Dose, a wineglassful at bedtime.

In making this decoction, the coriander seed directed in the officinal infusion of senna, had better be omitted until near the close of the process. This forms a good laxative for pregnant women.

90. *Infusion of Senna, Rhubarb, and Manna.*

℞. Sennæ, ℥vj;
Mannæ, ℥iv;
Rhei contusi,
Cardamomi, āā ℥ij;
Aquæ bullientis, Oj.
Macera per horam unam et cola.
Signa.—Dose, a wineglassful every two hours, until it operates.

91. *Alkaline Mixture of Aloes.*

℞. Aloës Capensis, ℥ijss;
Sodæ Bicarbonatis, ℥vj;
Aquæ, Oiv;
Spiritûs Lavandulæ Compositi, f℥ij.
Misce. Macera per dies quatuordecim et cola.
Signa.—Dose, a teaspoonful after each meal.

This is an excellent preparation for Hospital or Dispensary practice. It is particularly serviceable in cases of dyspepsia, attended with acidity of the stomach and torpor of the liver and bowels. J. P. METTAUER.

WINES AND TINCTURES.

92. *Wine of Colchicum Root and Laudanum.*

℞. Vini Colchici Radicis, f℥jss;
Tincturæ Opii, f℥ij.
Misce.
Signa.—Give twenty drops every three hours.

The preparations of colchicum often occasion vomiting and purging, if given alone; but when combined with small quantities of opium or morphia, as above, these effects are prevented, while the specific property of colchicum to control gout and rheumatism seems to be increased. EISENMAN.

93. *Tincture of Veratria.*

℞. Veratriæ, gr. iv;
Alcoholis, f℥j.
Fiat tinctura.
This may be given in doses of ten, fifteen, or twenty drops, in a wineglassful of sweetened water. It is designed as a substitute for the wine of colchicum, in dropsies, gout, rheumatism, &c.

The tincture of veratria is also recommended as an external application in the diseases above mentioned.

Veratria is poisonous, and, therefore, to be administered with great caution.

94. *Tincture of Elaterin.*

℞. Elaterin, gr. j;
Alcoholis, f℥j.
Solve; dein adde—
Acidi Nitrici, gtt. iv.
Misce.
Signa.—Dose, twenty to forty drops in a tablespoonful of cinnamon water. Used as a hydragogue cathartic in dropsies. MORRIES.

ENEMATA.

Enemata, used either as auxiliaries to, or substitutes for cathartics, very properly succeed that class of remedies.

They are employed to fulfil other indications, and the different preparations will be noticed under their appropriate heads. It is usual to direct three times the quantity of the medicine to be given for an enema that is required for a dose by the mouth. For the purpose of procuring a discharge from the bowels, this rule may generally be observed; but in some of the powerful remedies occasionally administered, as opium and tobacco, it might be attended with serious consequences. When using these active drugs, it is better to give only double the quantity.

The bulk of the enema also varies according to the object we have in view. If purgation is to be effected, the subjoined proportions afford a good rule; but if the remedial agent is to be retained for some time, a small amount is obviously indicated, lest the mere bulk of the injection cause an immediate discharge.

The following are the proportions recommended by Professor Chapman in the ordinary enemata for persons of different ages: A child between the ages of one and five years, from f℥iv to f℥vj. A youth of ten or fifteen years, half a pint; and an adult, from a pint to a quart, according to circumstances.

In all cases, a warm folded towel should be firmly pressed against the anus for fifteen minutes after the injection is thrown up.

95. *Castor Oil, Molasses, and Salt Enema.*

℞. Olei Ricini, f℥ij ;
Syrupi Fusci, f℥ij ;
Sodii Chloridi, ℥j ;
Infusi Lini tepidi, Oj.
Fiat enema.
One-half to be administered at once, and the remainder in half an hour, if the first produces no evacuation. The chloride of sodium is an active ingredient. In fact, there is no better enema than simple salt and water at the ordinary temperature ; and sea-water fresh from the ocean answers the same purpose.

96. *Soap Enema.*

℞. Saponis Vulgaris incisi, ℥j ;
Infusi Lini tepidi, Oss.
Misce pro enemăte.

This is an effectual clyster in cases of flatulence and impacted feces.

97. *Ox Gall Enema.*

℞. Fellis Bovini spissati, ℥ij ;
vel
Fellis Bovini recentis, f℥j ;
Aquæ tepidæ, Oj.
Misce.
Signa.—Use for an injection, in cases of obstinate constipation and hardened feces.

98. *Enema of Oil of Turpentine.*

℞. Olei Terebinthinæ, f℥ss ;
Vitellum unius Ovi.
Tere simul, et adde, gradatim,
Decocti Hordei tepidi, f℥x.
Used as a stimulating injection. GUY'S HOSPITAL PHARM.

99. *Enema of Senna and Epsom Salts.*

℞. Infusi Sennæ, Oj ;
Magnesiæ Sulphatis, ℥ij.
Misce.—One-half to be exhibited as an enema, and the remainder if necessary in half an hour.

100. *Enema of Tobacco.*

℞. Tabaci, ℥j;
Aquæ bullientis, Oj.
Macera per sextam horæ partem et cola.

One-quarter or one-half of this infusion may be used as an injection; and, if necessary, the same quantity may be given in half an hour. Employed for strangulated hernia, obstinate colic, spasm of the urethra, and for the reduction of dislocations. GUY'S HOSPITAL PHARM.

SUPPOSITORIES.

(From *Supponere*, to put under.)

Suppositories constitute a class of remedies that has hitherto been little used by American practitioners. They are solid; round, cylindrical, or conical in form; and intended for introduction into the anus. They are prepared by mingling sedative, astringent, or purgative medicines with cocoa-butter, suet, soap, or thick honey.

When made with suet, or cocoa-butter, these substances should be melted, at a gentle heat, with an eighth or a twelfth of white wax, according to the season of the year. The medicinal agent is added, and the fluid mass poured into metallic cones, to cool and become solid. A suppository should weigh from twenty grains to two drachms, and be as large as the end of the little finger. Purgative suppositories are larger than those of an anodyne character. By the heat of the body, the suet or cocoa-butter is softened, and the remedial agent is thus permitted to develop its effects.

Soap suppositories are formed by cutting soap into convenient shapes. Suppositories with honey are prepared by boiling down this substance, till it becomes sufficiently thick to retain its shape when cool.

101. *Laxative Suppository.*

R. Saponis, ℥ij;
Sodii Chloridi, ℥j;
Mellis spissati, q. s. ut fiat massa, in suppositoria singulas ℥ij pendentes, dividenda.
Signa.—Introduce a suppository every morning.
SPIELMANN.

102. *Another Form.*

℞. Pulveris Aloës Socotrinæ, ℥vj;
Sodii Chloridi,
Saponis, āā ℥jss;
Amyli, ℥viij;
Mellis, q. s.
Contunde in massam, in suppositoria singulas ℥ij pendentes, dividendam.

In the original formula, the size of the suppository is not specified, that being left to the judgment of the prescriber.

COD. HAMBERGENSIS.

103. *Rhubarb Suppository.*

℞. Saponis, ℥iij;
Extracti Rhei Alcoholici, ℥ss.
Contunde in massam, et fiant suppositoria iij.
Signa.—Use one suppository at bedtime. RADIUS.

CLASS III.

DIURETICS.

The rules for the administration of this class of remedies are few and simple.

Where there is much arterial excitement, a judicious use of the lancet should precede the employment of diuretics, and the patient be kept cool to avoid perspiration.

In order to insure the full effect of diuretics, diluent drinks should be freely given, and especially those containing some diuretic medicine.

POWDERS.

104. *Powder of Squill and Nitre.*

℞. Pulveris Scillæ, gr. vj;
Potassæ Nitratis, ʒj.
Misce, et fiant pulveres vj.
Signa.—One to be given three times a day in sugar and water.

Some aromatic, such as cinnamon, may be added to this preparation if the stomach is irritable. Employed in dropsies.

105. *Powder of Nitre, Cream of Tartar, and Tartar Emetic.*

℞. Potassæ Nitratis, ʒss;
Potassæ Bitartratis, ʒiv;
Antimonii et Potassæ Tartratis, gr. j.
Tere simul et fiat pulvis.
Signa.—Take a teaspoonful three times daily.

This combination is designed for cases of acute gonorrhœa. The free administration of saline diuretics in this disease often effects permanent cures. J. Neill.

106. *Powder of Uva Ursi and Soda.*

℞. Pulveris Uvæ Ursi, ʒjss;
Sodæ Bicarbonatis, ʒj.
Misce, et divide in chartulas xij.
Signa.—One three times a day in sugar and water.

In nephritic complaints and affections of the bladder.

107. *Powder of Ergot and Cubebs.*

℞. Pulveris Ergotæ, ℈ij;
Pulveris Cubebæ, ℥j;
Pulveris Cinnamomi, ʒss;
Sacchari, ℥j.
Divide in pulveres viij.
Signa.—One may be given three times a day. In leucorrhœa and gleet. DR. RYAN.

108. *Powder of Squill, Cream of Tartar, &c.*

℞. Antimonii et Potassæ Tartratis, gr. ij;
Pulveris Scillæ, ℥j;
Potassæ Bitartratis, ℥jss;
Potassæ Sulphatis, ℥ss.
Fiat pulvis, et divide in partes xx æquales.
Signa.—Take one powder four times daily.

This combination produces copious watery stools, together with a considerable flow of urine; properties that render it valuable in cases of general dropsy. EBERLE.

109. *Powder of Podophyllin and Cream of Tartar.*

℞. Resinæ Podophylli, gr. iv;
Potassæ Bitartratis, ℥iij.
Misce, et divide in pulveres viij.
Signa.—One powder every two hours.

Profuse watery evacuations result from the employment of this compound. It also acts as a diuretic. V. C. HOWE.

110. *Powder of Colchicum and Cream of Tartar.*

℞. Pulveris Colchici radicis, ʒss;
Potassæ Bitartratis, ℥ij.
Misce, et divide in pulveres vj.
Signa.—One powder every four hours.

This combination is very serviceable in acute rheumatism. Purging usually results from its employment. Sometimes the pulse becomes slow or irregular. J. JACKSON.

PILLS.

111. *Pills of Squill and Calomel.*

℞. Hydrargyri Chloridi Mitis,
Pulveris Scillæ, āā gr. xij;
Confectionis Rosæ, q. s. ut fiant pilulæ xij.

Signa.—One night and morning, in dropsies depending upon visceral derangement.

This preparation is one of the most celebrated of the diuretics, especially when disease of the liver is the cause of effusion. When the calomel affects the mouth it should be omitted, and the squill combined with some other diuretic.

112. *Pills of Digitalis, Calomel, and Opium.*

℞. Pulveris Digitalis, gr. xij;
Hydrargyri Chloridi Mitis, gr. vj;
Pulveris Opii, gr. iv;
Confectionis Rosæ, q. s. ut fiant pilulæ xij.
Signa.—One to be taken every eight hours.

In hydrothorax and ascites.

113. *Pills of Copaiba and Cubebs.*

℞. Ceræ flavæ, gr. xv.
Liquefac cum leni calore, dein adde—
Copaibæ, gr. xxx;
Pulveris Cubebæ, ℥j.
Misce intime et divide in pilulas xxx.
Signa.—Two pills every four hours.

This furnishes a good mode of exhibiting copaiba and cubebs in small quantities, as in chronic diseases of the bladder, or irritability of the urethra. J. M. Maisch.

114. *Pills of Extract of Dandelion and Blue Mass.*

℞. Extracti Taraxaci, ℥ss;
Pilulæ Hydrargyri, gr. x.
Misce et fiant pilulæ x.
Signa.—One to be taken morning, noon, and night. In dropsy complicated with disease of the liver.

115. *Granules of Digitalin.*

℞. Digitalini, gr. j;
Sacchari, ℥j;
Aquæ, q. s.
Fiat massa et divide in pilulas lx.
Signa.—Take one granule four times daily.

Prescribed in dropsy as a substitute for digitalis.
Homolle.

116. *Pills of Digitalis, Squill, and Juniper.*

℞. Pulveris Digitalis, ℈j;
Pulveris Scillæ, ʒss;
Olei Juniperi, gtt. viij;
Syrupi, q. s. ut fiat massa, in pilulas xij dividenda.
Signa.—Take one pill three times daily.

Used in dropsy. PEARSON.

117. *Pills of Digitalis, Squill, and Blue Mass.*

℞. Pulveris Digitalis, gr. v;
Pulveris Scillæ, gr. x;
Pilulæ Hydrargyri, ʒss.
Fiat massa, et divide in pilulas x.
Signa.—Take one pill three times daily.

This combination was highly recommended by the late Dr. Baillie, of London, as an alterative and diuretic in anasarca.

INFUSIONS AND DECOCTIONS.

118. *Infusion of Digitalis and Sweet Spirit of Nitre.*

℞. Digitalis, ʒj;
Aquæ bullientis, Oss.
Macera per horas tres, cola, et adde—
Spiritûs Ætheris Nitrosi, fʒj.
Signa.—Dose, for an adult, half a tablespoonful three times a day.

The prostrating effect of digitalis should always be kept in mind by the practitioner; and the rule, that when it acts upon the *stomach*, the *bowels*, the *pulse*, or the *kidneys*, it should be discontinued, cannot, when we consider the power of the article, be too scrupulously observed. ELLIS.

119. *Infusion of Juniper Berries and Cream of Tartar.*

℞. Juniperi contusi, ʒjss;
Aquæ bullientis, Oj.
Macera per horas duas, in vase leviter clauso, et cola. Dein adde—
Potassæ Bitartratis, ʒj.
Misce.
Signa.—Be careful to shake the bottle well before using. Of this, a teacupful may be taken four or six times a day; adding to each 40 drops of the sweet spirit of nitre. Employed in general and local dropsy.

120. *Another Form.*

℞. Juniperi contusi, ℥iv;
Aquæ bullientis, f℥xij;
Spiritûs Juniperi (Holland Gin), f℥iv.
Macera per horas duodecim et exprime.
Signa.—Take a wineglassful, mixed with a teaspoonful of cream of tartar, three times a day.

This is an excellent mode of administering a favorite diuretic, in cases of dropsy, in which a little stimulation would be admissible. W. Procter, Jr.

121. *Infusion of Parsley Root.*

℞. Petroselini, ℥j;
Aquæ bullientis, Oj.
Fiat infusum et cola.
A teacupful may be taken with a teaspoonful of sweet spirit of nitre, every three or four hours.

A popular and very useful remedy for strangury, arising from blisters. It is also an efficient diuretic in dropsies.

122. *Infusion of Scabious or Fleabane.*

℞. Erigerontis, ℥j;
Aquæ bullientis, Oj.
Macera per horas duas, et cola.
A pint of the tea should be taken daily. Nitre or any other diuretic may be added. Prescribed in calculous and nephritic affections, in strangury, irritable bladder, &c.

123. *Infusion of Uva Ursi.*

℞. Uvæ Ursi, ℥j;
Aquæ bullientis, Oj.
Macera per horas duodecim, et cola.
To be taken cold, from half a pint to a pint, daily. Chiefly used in gonorrhœa and irritable bladder.

124. *Infusion of Dandelion, &c.*

℞. Infusi Taraxaci, f℥iv;
Extracti Taraxaci, ℥ij;
Sodæ Carbonatis, ℥ss;
Potassæ Tartratis, ℥iij;
Tincturæ Rhei, f℥iij;
Tincturæ Hyoscyami, gtt. xx.
Fiat mistura.
Signa.—One-third part to be taken three times a day. In dropsical and visceral affections. C. D. Meigs.

125. *Spirituous Decoction of Pipsissewa.*

℞. Chimaphilæ, ℥ij;
Aquæ bullientis, Oj.
Coque ad f℥vj, cola, et adde—
Spiritûs Juniperi Compositi, f℥ij.
Misce.
Signa.—Dose, a tablespoonful every two or three hours, with diluent drinks.

In dropsy accompanied by debility.

126. *Decoction of Cahinca.*

℞. Radicis Caincæ, ℥j;
Aquæ bullientis, Oij.
Coque ad Oj, et cola.
Signa.—Dose, a tablespoonful three times a day.

Used in dropsy.

This root is derived from the *Chiococca Anguifuga*, a Brazilian plant, which has of late been extensively and efficaciously employed in Europe. It occasions watery evacuations and diuresis, whence its use in dropsy.—Dunglison, *New Remedies*, p. 148.

127. *Decoction of Indian Hemp.*

℞. Apocyni Cannabini, ℥ss;
Aquæ, Ojss.
Coque ad Oj, et cola.
Signa.—Take a wineglassful three times a day.

This has been found useful in general dropsy, acting as a hydragogue cathartic, and as a diuretic. The diuretic properties of the decoction will be increased by the addition of an ounce of juniper berries to each pint.

Griscom.

The young practitioner must carefully distinguish between preparations of the native drug under consideration (*Apocynum Cannabinum*), and the powerful, imported extract of *Cannabis Sativa;* as, unfortunately, they both bear the same trivial name of *Indian Hemp.*

Dr. Hiram Corson remarks, "I have been in the practice of using the apocynum for more than twenty years, as a remedy for dropsy, and think highly of it."

128. *Decoction of Pareira Brava Root.*

℞. Pareiræ contusæ, ℥ss;
Aquæ bullientis, Oiij.
Coque, leni calore, ad Oj, et cola.
Signa.—Take a wineglassful every two hours.

"Pareira Brava has a great influence over chronic inflammation of the bladder, lessening very materially the secretion of the ropy mucus, which is itself a very great evil, and, I believe, diminishing the inflammation and irritability of the bladder also." SIR B. BRODIE.

SOLUTIONS AND MIXTURES.

129. *Tincture of Digitalin.*

℞. Digitalini, gr. ij;
Alcoholis diluti, f℥j.
Fiat solutio.
Signa.—Take ten drops in sweetened water, three times daily.

Ten drops of this solution are equivalent to one-fiftieth of a grain of digitalin, and, consequently, the dose may be gradually increased until the peculiar effects of digitalis are developed.

130. *Cider Mixture.*

℞. Juniperi contusi,
Sinapis,
Zingiberis, āā ℥ss;
Armoraciæ, contusæ,
Petroselini, āā ℥j;
Succi fermenti pomorum, Oij.
Macera per diem unam, et cola.
Signa.—A wineglassful may be taken three or four times a day.

The above compound was recommended by the late Dr. Jos. Parrish, in cases of general dropsy which admit of stimulation, and in which the urinary secretion is deficient. The cider should be old and sound.

131. *Mixture of Oil of Juniper.*

℞. Olei Juniperi, f℥ss;
Spiritûs Ætheris Nitrosi,
Tincturæ Digitalis, āā f℥iij.
Misce.
Signa.—Give thirty drops every three hours.

This is the formula of the "*diuretic drops*," celebrated in Germany as a diuretic remedy, and used in all cases in which medicines of this class are indicated. HUFELAND.

132. *Diuretic Wine.*

℞. Juniperi contusi, ℥x;
Pulveris Digitalis, ℥ij;
Pulveris Scillæ, ℥j;
Vini Xerici, Oj.
Macera per dies quatuor, et adjice—
Potassæ Acetatis, ℥iij.
Exprime et cola.
Signa.—Dose, a tablespoonful three times daily.

This preparation is employed in "l'Hotel Dieu de Paris," and is found to be an efficient diuretic. TROUSSEAU.

133. *Mixture of Juniper, Squill, &c.*

℞. Potassæ Acetatis, ℥v;
Potassæ Bicarbonatis, ℥j;
Aquæ, f℥xij;
Tincturæ Scillæ, f℥j;
Spiritûs Juniperi Compositi, f℥j.
Fiat mistura.
Signa.—Take two tablespoonfuls three times a day.

Employed in dropsy. BROWN.

134. *Mixture of Digitalis, Acetate of Potassa, &c.*

℞. Infusi Digitalis, f℥iv;
Potassæ Acetatis, ℥ij;
Spiritûs Ætheris Nitrosi, f℥ij;
Aquæ Cinnamomi, f℥jss.
Fiat mistura.
Signa.—Take a tablespoonful every four hours.

Recommended in the treatment of dropsy supervening upon cardiac disease. KILGOUR.

135. *Another Form.*

℞. Infusi Digitalis, f℥iv;
Tincturæ Digitalis, f℥j;
Potassæ Acetatis, ℥j;
Tincturæ Opii, gtt. x.
Fiat mistura.
Signa.—Half a tablespoonful four times a day.

136. *Mixture of Cantharides and Sweet Spirit of Nitre.*

℞. Tincturæ Cantharidis,
Spiritûs Ætheris Nitrosi, āā gtt. lx;
Sacchari, ℥j;
Aquæ Menthæ Viridis, f℥ij.
Fiat mistura.
Signa.—A teaspoonful may be taken every three hours, desisting if strangury should supervene.

A stimulant diuretic. Used in atony of the bladder.

137. *Mixture of Oil of Turpentine.*

℞. Olei Terebinthinæ, ♏c;
Pulveris Acaciæ,
Sacchari, āā ℥j;
Aquæ Menthæ Viridis, f℥iv.
Fiat mistura.
Signa.—A tablespoonful four or five times a day, aided by some diuretic drink.

This remedy is used with great benefit in nephritic complaints, and especially in the passage of calculi through the ureters.

138. *Mixture of Benzoic Acid, &c.*

℞. Acidi Benzoici, ℈iv;
Spiritûs Juniperi Compositi, f℥ss;
Syrupi Tolutani, f℥jss;
Aquæ, f℥ij.
Fiat mistura.
Signa.—Give a dessert-spoonful every four hours.

This combination is recommended in the phosphatic variety of gravel. It is also useful in the treatment of diabetes.

139. *Mixture of Taraxacum, Cream of Tartar, &c.*

℞. Potassæ Bitartratis, ℥ij;
Mucilaginis Acaciæ, f℥j;
Aquæ, f℥ij;
Spiritûs Ætheris Nitrosi,
Extracti Taraxaci Fluidi, āā f℥ss.
Misce.
Signa.—A dessert-spoonful every four hours.

Used in dropsy attendant upon or associated with disease of the liver or portal system.

140. *Mixture of Elaterium, Colchicum, &c.*

℞. Elaterii, gr. j;
Spiritûs Ætheris Nitrosi, f℥ij;
Tincturæ Scillæ, f℥ss;
Aceti Colchici, f℥ij;
Syrupi, f℥j.
Fiat mistura.
Signa.—Take a teaspoonful four times a day in a little water.

Dr. Ferriar recommends the above in the several forms of dropsy, and more especially in hydrothorax.

141. *Mixture of Colchicum, Squill, and Tobacco.*

℞. Oxymellis Colchici, *Dub.*,
Oxymellis Scillæ, *Phar.* 1850,
Vini Tabaci, āā f℥ss.
Misce.
Signa.—Take a small teaspoonful in a little water four times a day.

If requisite, sweet spirit of nitre may be added in the same quantity. This forms the *diuretic drops* of Dr. Ferriar, and requires to be given with great circumspection.

142. *Hydragogue Draught of Dr. Ferriar.*

℞. Gambogiæ, gr. iv;
Spiritûs Ætheris Nitrosi, f℥j;
Tincturæ Sennæ et Jalapæ (*Phar.* 1850), f℥ij;
Syrupi Rhamni, *Ed.*,
Aquæ Menthæ Viridis, āā f℥ss.
Misce et fiat haustus.

Dr. Ferriar observes that, in some cases of hydrothorax attended with imminent danger of suffocation, he has afforded immediate relief by the above draught.

143. *Tincture of Colchicum and Digitalis.*

℞. Tincturæ Colchici,
Tincturæ Digitalis,
Spiritûs Ætheris Nitrosi, āā f℥j.
Misce.
Signa.—Dose, twenty drops on a lump of sugar.

Given as a diuretic in dropsy and hydrothorax.

HILDENBRAND.

144. *Mixture of Citrate of Potassa, Squill, &c.*

℞. Potassæ Carbonatis Puræ, ℥j;
Succi Limonis, q. s. ad saturandum;
Tincturæ Scillæ, f℥ss;
Tincturæ Opii, ♏xxx;
Aquæ Cinnamomi, f℥iv.
Misce.
Signa.—A tablespoonful every three hours throughout the day.

The vinegar or oxymel of squill, if preferred, may be substituted in this preparation. We use the tincture because it is more uniform, and less liable to spontaneous changes.

145. *Mixture of the Acetate of Potassa, and Spirit of Mindererus.*

℞. Liquoris Ammoniæ Acetatis, f℥ij;
Potassæ Acetatis, ℥ij.
Misce.
Signa.—A tablespoonful every three hours for a dose.

Recommended for gravel and lithic acid deposits.

146. *Mixture of Buchu and Acetate of Potassa.*

℞. Extracti Buchu Fluidi, f℥ss;
Potassæ Acetatis, ℥ij;
Syrupi, f℥jss;
Aquæ, f℥iv.
Misce.
Signa.—A tablespoonful every four hours.

This is an excellent diuretic combination, and its value may be farther enhanced by the addition of sweet spirit of nitre.

MORTON.

147. *Mixture of Urea.*

℞. Ureæ, ℥j;
Aquæ, f℥ijss;
Syrupi Aurantii Corticis, f℥ss.
Fiat mistura.
Signa.—Take a tablespoonful every six hours.

Its action as a diuretic should be aided by the free administration of diluents, as well as by keeping the skin moderately cool. The dose may be augmented to a scruple or more. Used in dropsy and albuminuria. T. H. TANNER.

148. *Mixture of Buchu and Uva Ursi.*

℞. Extracti Buchu Fluidi,
Extracti Uvæ Ursi Fluidi, āā f℥ij;
Syrupi Acaciæ, f℥ss;
Aquæ Menthæ Viridis, f℥j.
Misce.
Signa.—A dessert-spoonful every three hours.

Used in blennorrhœa, atony, and paralysis of the bladder.

149. *Mixture of Copaiba.*

℞. Copaibæ, ℥ss;
Spiritûs Ætheris Nitrosi, f℥ss;
Pulveris Acaciæ, ℥ij;
Sacchari, ℥j;
Aquæ destillatæ, f℥iv;
Spiritûs Lavandulæ Compositi, f℥ij;
Tincturæ Opii, f℥j.
Fiat mistura secundum artem.
Signa.—A tablespoonful three times a day. CHAPMAN.

This remedy is more especially used in gonorrhœa, and is considered by Professor Chapman as a specific in that disease. A preferable mode of exhibiting balsam copaiva, consists in dropping the quantity prescribed for a dose in a wineglass of water, and then adding to it a small quantity of the compound tincture of gentian. The balsam collects into a globule and is surrounded by the tincture, which, leaving its taste in the mouth, covers that of the nauseous balsam. ELLIS.

150. *Mixture of Copaiba, Cubebs, &c.*

℞. Copaibæ,
Pulveris Cubebæ, āā ℥ss;
Acaciæ,
Sacchari. āā ℥ij;
Aquæ, f℥vij;
Tincturæ Opii Camphoratæ, f℥ss.
Misce secundum artem.
Signa.—A tablespoonful every three hours.

We have found this remedy, in some obstinate cases of gonorrhœa, more efficacious than the preceding formula. The tincture of cubebs may be substituted for the powder, if desirable. Balsam copaiva is sometimes given by the French physicians in the form of enema, for the cure of gonorrhœa. Capsules containing it are also in common use.

S. G. MORTON.

151. *Another Form.*

℞. Copaibæ, ℥jss;
Mucilaginis Acaciæ, f℥v;
Olei Limonis, gtt. vj;
Tincturæ Cubebæ, f℥j;
Spiritûs Ætheris Nitrosi, f℥ss.
Fiat mistura.
Signa.—Take a tablespoonful three times a day, in gonorrhœa. J. Randolph.

152. *Compound Mixture of Copaiba.*

℞. Olei Copaibæ, f℥j;
Alcoholis,
Aquæ Menthæ Piperitæ,
Syrupi, āā f℥ss;
Spiritûs Ætheris Nitrosi, f℥ss.
Fiat mistura.
Signa.—To be taken during the day in four doses, followed by demulcent drinks.

In chronic gonorrhœa.

153. *Another Form.* (*Lafayette Mixture.*)

℞. Copaibæ, ℥j;
Liquoris Potassæ, f℥ij.
Tere simul et adjice—
Spiritûs Ætheris Nitrosi, f℥j;
Spiritûs Lavandulæ Compositi, f℥ij;
Syrupi Acaciæ, f℥iv.
Misce.
Signa.—A tablespoonful three times a day.

Used in gonorrhœa.

154. *Mixture of Fluid Extract of Cubebs.*

℞. Oleoresinæ Cubebæ, f℥ij;
Syrupi Acaciæ,
Syrupi Tolutani, āā f℥ss;
Spiritûs Ætheris Nitrosi, f℥ij;
Aquæ, f℥ijss.
Fiat mistura.
Signa.—Give a tablespoonful every three hours.

Used in gonorrhœa. Thomas.

CLASS IV.

ANTILITHICS AND LITHONTRIPTICS.

Antilithics are those substances which arrest or prevent the formation of stone in the kidneys or bladder. Lithontriptics are supposed to possess the power of dissolving calculous concretions, by acting on the substance which serves as the bond of union to the saline or acid particles composing the stone.

To administer these remedies with any degree of success, requires a chemical knowledge of the ingredients which enter into the formation of the different kinds of stone; attention must also be given to the properties of the urine.

As derangement of the digestive organs almost always coexists with these foreign bodies in the urinary apparatus, we shall gain a very considerable advantage by combining the remedies of this class with those which have a tendency to restore the healthy action of the stomach and bowels.

When lithic or uric acid abounds in the urine, the alkalies will be found to produce the greatest benefit; but where the salts are evidently of the phosphatic or magnesian character, the muriatic acid, or some one of the mineral acids, will constitute the most appropriate remedy.

POWDERS AND PILLS.

155. *Powders of Uva Ursi, Bark, and Opium.*

℞. Pulveris Uvæ Ursi,
Pulveris Cinchonæ Flavæ, āā ʒij;
Pulveris Opii, gr. iij.
Misce, et divide in chartulas vj.—Of which one may be taken three or four times a day.

The above is the original prescription of Dr. Ferriar, for urinary deposits, who advises the patient to drink two ounces

of lime-water after each dose. It is designed to give tone to the digestive and urinary apparatus, and thereby to prevent the further formation of stone.

156. *Pills of Carbonate of Soda and Soap.*

℞. Sodæ Carbonatis exsiccatæ,
Saponis, āā ℥j;
Extracti Glycyrrhizæ,
Aquæ, āā q. s. ut fiat massa in pilulas xxx dividenda.
Signa.—Take three pills, three times a day.

Prescribed when lithic acid deposits are found in the urine.
BEDDOES.

SOLUTIONS, MIXTURES, ETC.

157. *Solution of Potassa, Tincture of Hops, &c.*

℞. Liquoris Potassæ, f℥ss;
Tincturæ Humuli, f℥jss;
Infusi Calumbæ, f℥iv;
Syrupi Aurantii Corticis, f℥ij.
Fiat mistura.
Signa.—Take a tablespoonful three times daily.

Employed in cases where the urine indicates an excess of lithic acid. H. GREEN.

158. *Solution of Bicarbonate of Soda, &c.*

℞. Sodæ Bicarbonatis, ℥j;
Infusi Quassiæ, f℥iv;
Tincturæ Calumbæ, f℥j.
Misce.
Signa.—A tablespoonful four times a day.

Used in the same cases as the preceding.

159. *Mixture of Bicarbonate of Soda, &c.*

℞. Sodæ Bicarbonatis, ℥j;
Misturæ Amygdalæ, f℥iv;
Copaibæ, f℥ij;
Tincturæ Opii, gtt. lx.
Fiat mistura secundum artem.
Signa.—A tablespoonful every three hours.

In acute pain of the bladder.

In combination with each of these alkaline preparations, demulcent drinks may with benefit be freely employed.

160. *Solution of Bicarbonate of Potassa.*

℞. Potassæ Bicarbonatis, gr. x;
Aquæ Acidi Carbonici, f℥vss;
Syrupi, f℥ss.
Misce.
Draught, to be taken three or four times a day.

161. *Fluid Extract of Hydrangea Arborescens.*

℞. Radicis Hydrangeæ contusi, ℥xvj;
Aquæ bullientis, Ovj.
Coque ad Oss, cola, et adjice—
Mellis, Oij.
Coque ad Ojss, et adjice—
Spiritûs Vini Gallici, Oss.
Signa.—Dose, a teaspoonful three times daily.

This formula is furnished by Mr. Edward Parrish, based on one devised by Dr. S. W. Butler, who first called the attention of the profession to the valuable properties of this root. In chronic catarrh of the bladder and gravel it has proved highly beneficial, as also in cases of stone. Indeed, in some instances, small stones have been passed during its employment. Dr. W. L. Atlee, of Philadelphia, and Dr. J. C. S. Monkur, of Baltimore, report favorably of its use in cases of earthy deposits in the urine.

162. *Mixture of Carbonate of Magnesia and Gentian.*

℞. Magnesiæ Carbonatis, ℥j;
Infusi Gentianæ Compositi, f℥vj.
Fiat mistura.
Signa.—A wineglassful to be taken three times a day.

This mixture is recommended by Mr. Brande, of London, as superior to the alkalies, in cases where uric acid abounds.

163. *Mixture of Muriatic Acid.*

℞. Acidi Muriatici diluti, f℥j;
Decocti Hordei, f℥viij.
Misce.
Signa.—Dose, a tablespoonful largely diluted three times a day.

Prescribed for the prevention of phosphatic deposits in the urine.

Nitric acid has been given with the same intention, but appears to be less useful than muriatic.

164. *Mixture of Phosphoric Acid.*

℞. Acidi Phosphorici diluti, f℥ss;
Infusi Calumbæ, f℥vij;
Tincturæ Cardamomi Compositæ, f℥ss.
Fiat mistura.
Signa.—A tablespoonful in sweetened water every four hours.

Used to correct phosphatic deposits in the urine.

NELIGAN.

165. *Mixture of Oil of Turpentine and Ether.*

℞. Olei Terebinthinæ,
Ætheris, āā f℥iv.
Misce.
Signa.—A large teaspoonful to be taken on sugar every half hour until relief is obtained.

Oil of turpentine has been frequently given of late in the passage of urinary concretions down the ureters. It is stated by Dr. Physick that this remedy, proportioned in its dose to the degree of suffering, affords more prompt relief than any other.

166. *Injection of Carbonate of Soda.*

℞. Sodæ Carbonatis, ℥j;
Saponis, ℥ij;
Aquæ destillatæ, f℥xij.
Fiat solutio et cola.
Signa.—Use as an urethral injection, for softening uric acid deposits. HÔPITAL DE MONTPELLIER.

167. *Injection of Carbonate of Lithia.*

℞. Lithiæ Carbonatis, ℥j;
Aquæ, Oj.
Solve.
Signa.—Use as an urethral injection.

Mr. Alexander Ure recommends the carbonate of lithia as an injection into the bladder for the solution of uric acid deposits. He suggests its special use for removing the sharp angular points and asperities of the broken fragments, where the practice of crushing is adopted.

Dr. Garrod recommends the internal employment of carbonate of lithia in the uric acid diathesis, two to three grains being given in free solution three times a day.

CLASS V.

DIAPHORETICS.

During the exhibition of this class of medicines the patient must be confined to his bed; and when diaphoresis is once excited, every precaution should be taken lest it be suddenly checked.

Venesection should generally be resorted to when there is much arterial excitement with great heat of the skin, before we attempt to give diaphoretics. When the skin continues steadily hot and dry, all external warmth must be removed, and cold water freely applied to the temples, hands, feet, &c., while the room is to be kept cool by a free current of fresh air. Under these circumstances, cold water may be frequently and plentifully drunk by the patient. Diaphoretics given in conjunction with these general means, will act with much more certainty than if great heat of the surface is maintained by covering the patient with heavy bedclothes. If it be desirable to produce perspiration when the heat of the skin is not above the natural standard, we shall obtain our object most readily by placing the patient in a warm bed, giving him warm drinks freely, placing his feet in warm water, or applying hot bottles, or bags of sand, to the different parts of his body. The bags of sand accommodate themselves to the inequalities of the surface, and therefore form an excellent mode of applying heat externally. Warm bricks, covered with cloths, and wetted with vinegar, may also be used advantageously. Employed in this way they form a steam-bath. The same effect may be produced by conducting the vapor of alcohol through a tube, under the bedclothes of the patient.

In a few words, then, we have described the manner of producing diaphoresis under opposite states of the system. In the first instance we solicit, in the second we rather extort it.

It may be proper to observe, that in the febrile affections the frequent change of linen about the patient is not only

warrantable, but absolutely necessary, whilst employing this class of remedies.

Where, however, we are desirous of producing what is emphatically termed "*a sweat*," we should envelop the patient in a flannel shirt or gown, and avoid, as was before observed, every cause which may suddenly check the cutaneous discharge, and more especially purging and diuresis.

In the treatment of ordinary fevers, we usually resort to articles recognized by the profession as being capable of producing perspiration, or sweating, soon after their exhibition: while in chronic diseases, as syphilis, scrofula, and the cachectic state following the use or abuse of mercury, others are employed which combine an alterative property with their tendency to the skin. It is therefore deemed advisable to make two sub-classes, viz., 1. Ordinary Diaphoretics, and 2. Alterative Diaphoretics.

Sub-Class I.—ORDINARY DIAPHORETICS.

POWDERS.

168. *Dover's Powder.*

℞. Pulveris Ipecacuanhæ Compositi, ʒss.
Divide in pulveres vj.
Signa.—Take one powder three times a day.

The most material difference between the officinal powder and that of Dr. Dover, made public in 1733, is in the substitution of the sulphate of potassa for saltpetre.

The principal use of the former salt in this preparation, appears to be to facilitate the minute division of the other two ingredients. Its crystals are extremely hard, and the prolonged trituration necessary to reduce them, renders the opium and ipecacuanha impalpable. It is one of the happiest and most useful combinations, having stood the test of time and experience with undiminished reputation. To promote its operation, warm drinks may be freely taken, but not immediately after the dose, lest vomiting be induced.

169. *Dover's Powder, Camphor, and Saltpetre.*

℞. Camphoræ, redactæ in pulverem, gr. v;
Potassæ Nitratis, gr. xx;
Pulveris Ipecacuanhæ Compositi, gr. x.
Tere simul et fiant pulveres ij.
Signa.—One powder to be taken at bedtime.

This excellent diaphoretic is serviceable in febrile cases complicated with irregular nervous action. SIMPSON.

170. *James's Powder.*

℞. Pulvis Antimonialis, *Ed.* ʒj.
Divide in chartulas vj.
Signa.—One every two or three hours in syrup or molasses.

Employed in febrile conditions.

This powder, which has been introduced as the succedaneum of the celebrated fever powder of Dr. James, has lately been pronounced inert by Mr. Richard Phillips, chemist, of London. Learning that it had produced no effect when largely exhibited, he determined to examine it chemically, and found it to consist of peroxide of antimony (which he says is inert), and the phosphate of lime. But, as Dr. Paris observes, "it will be difficult for the chemist to persuade the physician he can never have derived any benefit from the exhibition of antimonial powder."

171. *Nitrous Powders.*

℞. Potassæ Nitratis, ʒj ;
Antimonii et Potassæ Tartratis, gr. ss ;
Hydrargyri Chloridi Mitis, gr. vj.
Fiant pulveres vj.
Signa.—One to be taken every two hours in syrup or molasses.

In febrile affections.

The calomel may be omitted or employed, at the discretion of the practitioner.

172. *Powders of Opium, Ipecacuanha, Calomel, and Saltpetre.*

℞. Pulveris Opii, gr. iij ;
Pulveris Ipecacuanhæ, gr. vj ;
Hydrargyri Chloridi Mitis, gr. jss ;
Potassæ Nitratis, ʒss.
Fiant pulveres vj.
Signa.—One to be taken every three or four hours.

This is a valuable anodyne and alterative diaphoretic.

173. *Powders of Calomel, Opium, and Ipecacuanha.*

℞. Pulveris Opii, gr. iv ;
Hydrargyri Chloridi Mitis, gr. ij ;
Pulveris Ipecacuanhæ, gr. viij.
Divide in pulveres viij.
Signa.—One to be taken every two hours.

This combination is recommended by Professor Chapman in dysentery. From its evident diaphoretic tendency we have been induced to place it under this head.

174. *Powders of Sulphuret of Antimony, Calomel, &c.*

℞. Antimonii Sulphurati,
Hydrargyri Chloridi Mitis, āā gr. vj;
Pulveris Guaiaci Resinæ, ʒj.
Fiant pulveres vj.
Signa.—One to be taken morning and evening.

Double or even triple proportion of the ingredients may be used if necessary.

Given in cutaneous diseases.

175. *Soda Powder of Guy's Hospital.*

℞. Sodæ Carbonatis exsiccatæ, ʒj;
Hydrargyri Chloridi Mitis, gr. xij:
Pulveris Cretæ Compositi, *Lond.* ʒij.
Misce.
Signa.—Give three to eight grains at night for a week, in infantile gastric fever; followed in the morning by five grains of rhubarb mixed with ten grains of the sulphate of potassa. Dr. Fordyce says of the above: "Had I been more ambitious of dying a rich man than of living a useful member of society, the powers of our antihectic powder in curing, as if by miracle, the hectic fever and the swelled bellies of children in London, would have remained a secret while I lived." GOLDING BIRD.

176. *Compound Powder of Guaiacum.*

℞. Pulveris Guaiaci Resinæ,
Potassæ Nitratis, āā ʒj;
Pulveris Ipecacuanhæ, gr. iij;
Pulveris Opii, gr. ij.
Fiant pulveres vj.
Signa.—One to be taken every three hours in a little jelly or molasses.

A stimulating diaphoretic, and particularly serviceable in acute rheumatism after the reduction of inflammatory symptoms.

SOLUTIONS AND MIXTURES.

177. *Solution of Morphia and Wine of Ipecacuanha.*

℞. Morphiæ Acetatis, ℥j;
Acidi Acetici diluti, f℥j.
Solve; dein adde—
Alcoholis diluti, f℥vij;
Vini Ipecacuanhæ, f℥ij.
Misce.

This solution, devised by Dr. J. B. Coleman, is kept ready prepared in the stores of Trenton, N. J. It is employed as a liquid substitute for Dover's powder, as a diaphoretic and anodyne. Ten minims contain one-eighth of a grain of morphia, and one grain of ipecacuanha. C. T. Bonsall.

178. *Neutral Mixture.*

℞. Succi Limonis recentis, f℥jss;
Potassæ Carbonatis, q. s. ad saturandum;
Sacchari, ℥ij;
Antimonii et Potassæ Tartratis, gr. ss;
Aquæ destillatæ, f℥iij.
Misce.
Signa.—A tablespoonful to be taken every two hours.

This preparation is one of our most agreeable diaphoretics. Its powers are decidedly increased by the addition of tartar emetic, which, however, may be omitted, and the sweet spirit of nitre be substituted, if preferred.

179. *Solution of Citrate of Potassa.*

℞. Potassæ Citratis, ℥iij;
Olei Limonis, gtt. ij;
Sacchari, ℥ij;
Aquæ destillatæ, f℥iv.
Misce.
Signa.—A tablespoonful to be taken every two hours.

This preparation is a good substitute for the preceding, and is in several respects to be preferred. Spirit of nitre may be added when indicated.

180. *Effervescing Draught.*

℞. Potassæ Carbonatis, ℥ij;
Aquæ destillatæ, f℥iv.
Solve.

℞. Succi Limonis recentis,
Aquæ destillatæ, āā f℥ij.
Misce.

Signa.—Mix two tablespoonfuls of the lemonade with one of the alkaline solution, and let the mixture be drunk while effervescing. To be repeated every two hours.

This preparation differs from the neutral mixture more in the mode of exhibition than in any other important particular. It is of great value when irritability of the stomach precludes the use of ordinary diaphoretics.

181. *Mixture of Spirit of Mindererus and Antimonial Wine.*

℞. Liquoris Ammoniæ Acetatis, f℥ij;
Aquæ Cinnamomi, f℥j;
Vini Antimonii, f℥j;
Aquæ destillatæ, f℥ij.
Fiat mistura.

Signa.—A tablespoonful every two or three hours.

The excellent diaphoretic known as the spirit of Mindererus, appears to have been first used by Boerhaave, in 1732. With us it is generally prescribed in combination, as in the preceding or the following form.

182. *Spirit of Mindererus, Sweet Spirit of Nitre, &c.*

℞. Liquoris Ammoniæ Acetatis, f℥vj;
Syrupi Limonis, f℥ij;
Vini Antimonii, f℥jss;
Spiritûs Ætheris Nitrosi, f℥ij;
Tincturæ Opii, gtt. xlv.
Fiat mistura.

Signa.—Take a tablespoonful every two hours. EBERLE.

183. *Mixture of Citrate of Ammonia.*

℞. Succi Limonis recentis, f℥j;
Ammoniæ Carbonatis, q. s. ad saturandum;
Sacchari, ℥j;
Aquæ destillatæ, f℥iv.
Fiat mistura.

Signa.—A tablespoonful may be taken every three hours.

This preparation is seldom employed in the practice of this

city. It may, however, be beneficially given as a pleasant stimulating diaphoretic. ELLIS.

184. *Sweet Spirit of Nitre and Antimonial Wine.*

℞. Spiritûs Ætheris Nitrosi, f℥j ;
Vini Antimonii, f℥ij.
Misce.
Signa.—A teaspoonful may be taken every hour or two hours, in barley-water, during the hot stage of intermittent and other fevers.

185. *Sweet Spirit of Nitre with Antimonial Wine and Laudanum.*

℞. Tincturæ Opii, gtt. xxv ;
Spiritûs Ætheris Nitrosi, f℥j ;
Vini Antimonii, gtt. xx ;
Aquæ destillatæ, f℥ss.
Fiat mistura.
Signa.—To be given at once, and the dose to be repeated every three hours.

Dr. Chapman observes, in his Therapeutics, that "this combination very frequently acts as a diuretic in dropsy, and has more than once, within my knowledge, removed the effusion in this disease, under circumstances the least to be expected."

186. *Mixture of Saltpetre and Tartar Emetic.*

℞. Potassæ Nitratis, ℥ij ;
Antimonii et Potassæ Tartratis, gr. j ;
Pulveris Extracti Glycyrrhizæ,
Pulveris Acaciæ, āā ℥ij ;
Aquæ Fœniculi,
Aquæ destillatæ, āā f℥iijss.
Fiat mistura.
Signa.—Give a tablespoonful every two hours.

This is proposed as a substitute for the nitrous powders, as being less apt to offend the stomach than the same substances in a pulverulent form. EBERLE.

187. *Mixture of Guaiacum, Saltpetre, &c.*

℞. Pulveris Guaiaci Resinæ, ℥ij ;
Potassæ Nitratis, ℥jss ;
Antimonii et Potassæ Tartratis, gr. j ;
Pulveris Acaciæ,
Pulveris Extracti Glycyrrhizæ, āā ℥j ;
Aquæ destillatæ, f℥viij.
Fiat mistura.
Signa.—A tablespoonful three or four times a day.

This preparation, if made without the liquorice, is disposed to turn green, which gives it an unpleasant appearance, and sometimes induces the patient to refrain from it until the physician arrives. It is employed principally in rheumatic cases.

ELLIS.

188. *Mixture of Nitrate of Potassa.*

℞. Decocti Hordei, Oj;
Potassæ Nitratis, ℥ij;
Succi Limonis, f℥j.
Fiat potus.

To be used warm as a common drink in doses of a wineglassful.

Administered in this way, saltpetre proves an excellent diaphoretic; but if given in cold infusion its action is chiefly manifested on the kidneys.

189. *Mixture of Tolu with Wine of Antimony.*

℞. Tincturæ Tolutanæ, f℥v;
Pulveris Acaciæ,
Sacchari, āā ℥j;
Vini Antimonii, f℥j;
Aquæ Cinnamomi, f℥ij.
Fiat mistura.
Signa.—A tablespoonful three or four times a day.

This is a stimulating diaphoretic, and will be found serviceable in pectoral diseases accompanied with an excessive mucous discharge depending on debility of the bronchial membrane.

190. *Mixture of Gelsemium.*

℞. Extracti Gelsemii Fluidi (*Thayer*), f℥j;
Syrupi Limonis, f℥ij;
Aquæ, f℥xiij.
Misce.
Signa.—Give a teaspoonful every two hours.

The yellow jessamine (*Gelsemium sempervirens*) has a depressing and sedative influence upon the nervous centres, and it diminishes the force and frequency of the heart's action. It has been employed by practitioners in various parts of the United States with benefit in febrile diseases and rheumatism. In full doses it causes vertigo and impaired vision.

191. *Mixture of Aconite and Wine of Colchicum.*

℞. Extracti Aconiti Alcoholici, gr. xij;
Syrupi, f℥j;
Vini Colchici Seminis, f℥ss.
Fiat mistura.

Signa.—Take fifteen drops every three hours.

Used in acute and chronic rheumatism, gradually increasing the dose. WEBER.

192. *Mixture of Aconite and Spirit of Mindererus.*

℞. Tincturæ Aconiti Radicis, ♏xxx;
Liquoris Ammoniæ Acetatis, f℥ij;
Syrupi Limonis, f℥ss.
Misce.
Signa.—Give a dessert-spoonful every three hours.

Employed beneficially in acute rheumatism and pleurisy. In the latter disease, aconite often relieves the peculiar lancinating pain in a surprising manner. Its action should be carefully watched. R. P. THOMAS.

193. *Mixture of Aconite and Veratrum Viride.*

℞. Tincturæ Aconiti Folii, f℥v;
Extracti Veratri Viridis Fluidi, f℥j.
Misce.
Signa.—Give twelve drops every two hours.

Under the combined influence of aconite and veratrum viride, the force and frequency of the pulse in fevers or inflammations can be reduced with safety and rapidity. It is necessary, however, to watch the effects of these remedies.

194. *Mixture of Arnica and Guaiac.*

℞. Tincturæ Arnicæ,
Tincturæ Guaiaci Ammoniatæ, āā f℥iij.
Misce.
Signa.—Take sixty drops four times daily, in sweetened water.

Recommended in rheumatic gout and chronic rheumatism. American practitioners seldom prescribe arnica internally, owing, perhaps, to a want of familiarity with its properties. In Germany it is considered a stimulant diaphoretic, with a decided tendency to the brain. SCHUBARTH.

INFUSIONS.

195. *Infusion of Boneset.*

℞. Eupatorii, ℥j;
Aquæ bullientis, Oj.
Macera per horam dimidiam in vase leviter clauso et cola.
Signa.—Take a wineglassful every hour, till perspiration is freely induced. The infusion must be taken as hot as it can be drunk; otherwise it may produce vomiting.

Used in colds, influenza, and intermittent fever.

196. *Infusion of Pleurisy Root.*

℞. Radicis Asclepiadis, contritæ, ℥j;
Aquæ bullientis, Ojss.
Fiat infusum.
Signa.—A teacupful to be taken warm, as frequently as the stomach will bear it. N. CHAPMAN.

Professor Chapman observes of this plant: "As a diaphoretic, I think it is distinguished by great certainty and permanency of operation, and has this estimable property, that it produces its effects without increasing much the force of the circulation, raising the temperature of the surface, or creating inquietude and restlessness."—*Therapeutics*, vol. i, p. 347.

SUB-CLASS II.—ALTERATIVE DIAPHORETICS.

PILLS.

197. *Pills of Cinnabar and Serpentaria.*

℞. Hydrargyri Sulphureti Rubri,
Pulveris Serpentariæ, āā ℥ss;
Syrupi, q. s.
Fiant pilulæ xij.
Signa.—Two of these to be taken three times a day.

They are alterative as well as diaphoretic, and are useful in herpetic and other obstinate cutaneous complaints.

198. *Plummer's Pills.*

℞. Hydrargyri Chloridi Mitis,
Antimonii Sulphurati, āā ℥ss:
Pulveris Guaiaci Resinæ, ℥j;
Syrupi fusci, q. s. ut fiant pilulæ lx.
Signa.—Three pills to be taken night and morning.

These pills were recommended by Professor Plummer, in leprosy, secondary syphilis affecting the skin, gleets, old

ulcers, &c. &c. The decoction of guaiacum generally accompanies their use.

DECOCTIONS.

199. *Decoction of Burdock.*

℞. Radicis Lappæ, ℥iij;
Aquæ, Oiij.
Coque ad Oij, et cola.
Signa.—A teacupful may be taken five or six times a day.

Used in syphilis, scurvy, arthritic affections, and rheumatism.

200. *Decoction of Mezereon.*

℞. Mezerei, ℥vj;
Aquæ, Ovj;
Coque ad colaturæ, Oiv.
Sub finem coctionis, adde—
Extracti Glycyrrhizæ, ℥j, et cola.
Signa.—Give a wineglassful several times daily.

Given in scrofula complicated with syphilis, and in various skin diseases.

201. *Compound Decoction of Sarsaparilla.*

℞. Sarsaparillæ, contritæ, ℥iij;
Mezerei, concisi, ℥ij;
Aquæ, Oiij.
Coque ad colaturæ, Oij.
Sub finem coctionis, adde—
Extracti Glycyrrhizæ, ℥ss.
Signa.—A teacupful four times daily.

This preparation or its equivalent, the "Decoctum Sarsaparillæ Compositum" of the Pharmacopœia, has long been celebrated in the secondary forms of syphilis, and the diseases produced by the improper exhibition of mercury. It is also much employed in rheumatism and chronic skin diseases.

SWEDIAUR.

MIXTURES.

202. *Mixture of Muriate of Baryta and Iron.*

℞. Barii Chloridi, ℥ss;
Aquæ Menthæ Piperitæ, f℥ijss;
Tincturæ Ferri Chloridi, f℥ss;
Syrupi Aurantii Corticis, f℥j.
Fiat mistura.
Signa.—Take a teaspoonful every three hours.

Used in obstinate scrofulous diseases. Each dose contains about one grain of the chloride of barium, and seventeen drops of the muriated tincture of iron. This corresponds in strength with a prescription by FISCHER.

203. *Mixture of Buchu and Iodide of Potassium.*

℞. Infusi Buchu, f℥viij;
Liquoris Potassæ, f℥j;
Potassii Iodidi, ℥ss;
Spiritûs Ætheris Nitrosi, f℥iij.
Fiat mistura.
Signa.—Take two tablespoonfuls three times a day.

Used in chronic and syphilitic rheumatism. S. WRIGHT.

204. *Sarsaparilla Beer.*

℞. Sarsaparillæ contusæ, ℔ij;
Pulveris Guaiaci Corticis, ℥viij;
Guaiaci Ligni concisi,
Anisi,
Radicis Glycyrrhizæ contusæ, āā ℥iv;
Mezerei, ℥j;
Syrupi fusci, Oij;
Caryophylli contusi, ℥ss;
Aquæ bullientis, Congios iv.
Mix these ingredients, and agitate the vessel thrice a day. When a fermentation has well begun it is fit for use, and may be taken in the dose of a small tumblerful twice or thrice a day.

"This is the Spanish recipe for the Jarave or diet drink, somewhat modified. If intended for old and obstinate complaints, as leprous affections, elephantiasis, various anomalous ulcerations and foul disorders of the skin, there may be added to the jug, *after fermentation has well begun*, tartrate of antimony twelve grains, corrosive sublimate eight or ten grains, muriate of ammonia one drachm, dissolved previously in a little water. These remedies greatly increase the alterative powers of the vegetable infusion, and so effectually prevent its decomposition that it may be kept for a long time unaltered, *even in a hot climate.*"—See *Hancock on Sarsaparilla. Journal of the Philadelphia College of Pharmacy*, vol. i, No. 4.

CLASS VI.

EXPECTORANTS.

During the administration of Expectorants the patient should be kept warm, and, if the complaint be violent, in bed. The dose of all the Expectorants should be repeated sufficiently often to allay the irritation as much as possible; for it is obvious that the act of coughing increases that very irritation which orginally gave rise to it.

POWDERS, PILLS, AND LOZENGES.

205. *Powders of Myrrh, Ipecacuanha, &c.*

℞. Pulveris Myrrhæ, gr. xij;
Pulveris Ipecacuanhæ, gr. vj;
Potassæ Nitratis, ℥ss.
Misce, et divide in partes iv.
Signa.—One to be taken every fourth hour.

A stimulating expectorant used in chronic bronchitis, and the catarrh of elderly persons.—Paris's *Pharmacologia.*

206. *Powders of Nitrate of Potassa, Calomel, Opium, &c.*

℞. Potassæ Nitratis, gr. xxx;
Hydrargyri Chloridi Mitis,
Pulveris Opii,
Pulveris Ipecacuanhæ, āā gr. iij.
Misce, et divide in chartulas vj.
Signa.—One every three hours in syrup or molasses.

All powders containing calomel, or other metallic prepa-

rations, should be given in syrup, as they sink when water is employed as the vehicle.

Used in the same cases as the foregoing.

207. *Pills of Sulphate of Zinc and Myrrh.*

℞. Zinci Sulphatis, gr. x;
Pulveris Myrrhæ, ʒjss;
Confectionis Rosæ, q. s. ut fiant pilulæ xx.

This prescription is taken from the Pharmacologia of Dr. Paris, who recommends two of the pills to be taken twice a day.

It is principally used in pertussis; but a more efficient direction would be to reduce the myrrh to a drachm, on account of the size of the pills, and to give a pill every two hours. Dr. Paris remarks, that the principal nostrums for hooping-cough are formed either of opium or sulphate of zinc, or a combination of the two.

208. *Pills of Hemlock and Dover's Powder.*

℞. Extracti Conii,
Pulveris Ipecacuanhæ Compositi, āā gr. x.
Misce, et fiant pilulæ v.
Signa.—Two may be taken at bedtime.

In pulmonary irritation, attended with rheumatic and other local pains.

209. *Pills of Tartar Emetic and Opium.*

℞. Antimonii et Potassæ Tartratis,
Pulveris Opii, āā gr. jss;
Pulveris Tragacanthæ, gr. x;
Confectionis Rosæ, q. s. ut fiant pilulæ xxv.
Signa.—Two to be taken night and morning.

In chronic pulmonary catarrh. DR. PARISET.

210. *Pills of Squill, Ammoniac, and Hemlock.*

℞. Pulveris Scillæ,
Extracti Conii, āā ʒss;
Ammoniaci, ʒj.
Fiat massa, et divide in pilulas xxx.
Signa.—One pill every four hours.

Like the officinal "Pilulæ Scillæ Compositæ," this is an efficient expectorant combination, which may be prescribed with great benefit in chronic bronchitis, catarrh, and asthma.

211. *Pills of Calomel, Squill, Ammoniac, &c.*

℞. Hydrargyri Chloridi Mitis, gr. iij;
Scillæ recentis,
Ammoniaci, āā ℈j;
Pulveris Ipecacuanhæ Compositi, ʒss;
Confectionis Rosæ, q. s. ut fiat massa, in pilulas xxx dividenda.

Signa.—One four times a day.

This formula is recommended by the celebrated Dr. Latham, of London, for the relief of troublesome cough. In this country it will generally be necessary to substitute dried squill in half of the quantity, owing to the difficulty of obtaining the fresh article.

212. *Pills of Calomel, Squill, Tartar Emetic, &c.*

℞. Hydrargyri Chloridi Mitis, gr. xxiv;
Pulveris Scillæ, ʒss;
Antimonii et Potassæ Tartratis, gr. vj;
Pulveris Opii, gr. xviij;
Syrupi, q. s.

Fiant pilulæ xxiv.

Signa.—One every night.

In chronic catarrhal affections.

213. *Pills of Sulphate of Zinc.*

℞. Zinci Sulphatis, ℈ss;
Confectionis Rosæ, q. s. ut fiant pilulæ xx.

One of these pills may be given three times a day.

In phthisis and pertussis.

214. *Pills of Tar and Gentian.*

℞. Picis liquidæ, ʒj;
Pulveris Gentianæ, q. s. ut fiat massa.

Fiant pilulæ xxx.

Signa.—Take a pill morning, noon, and night.

Tar is a mild, stimulant expectorant; and is often employed, in different forms, in chronic bronchial affections and consumption.

215. *Pills of Myrrh, Squill, and Henbane.*

℞. Myrrhæ, ʒj;
Pulveris Scillæ,
Extracti Hyoscyami, āā ʒss;
Aquæ destillatæ, q. s. ut fiat massa in pilulas xxx dividenda.

Signa.—Two to be taken night and morning.

These pills are recommended by Dr. Paris, in phthisis and catarrh attended with great debility of the pulmonary organs.

216. *Wistar's Cough Lozenges.*

℞. Pulveris Acaciæ,
Extracti Glycyrrhizæ,
Sacchari, āā ʒij;
Pulveris Opii, gr. vj;
Olei Anisi, gtt. iv.
Misce, et adde—
Aquæ destillatæ, q. s. ut fiant trochisci lx.
Signa.—One of these may be dissolved in the mouth three or four times a day.

These lozenges, which were originally prescribed by the late Prof. C. Wistar, have long been highly esteemed for their demulcent and anodyne properties, and have been much employed both in general and domestic practice for the relief of cough. Mr. Edward Parrish recommends the substitution of sulphate of morphia, in equivalent quantity, for the opium. He also directs the lozenges when dry to be varnished with tincture of Tolu. These changes improve their flavor without impairing their efficiency.

217. *Pectoral Lozenges of Emetia.*

℞. Emetiæ Fuscæ, gr. xxxij;
Sacchari, ʒiv;
Mucilaginis Acaciæ, q. s. ut fiant trochisci singuli grana x pendentes.

One of these will produce more or less nausea in a child; but if this is not desirable, they can be given in divided portions. Adults may take one or two at intervals of two hours, without the risk of vomiting.

Given in cases of catarrh, hooping cough, &c.

MAGENDIE.

218. *Spitta's Lozenges.*

℞. Pulveris Cubebæ, ʒij;
Balsami Peruviani, gr. vj;
Syrupi Tolutani, fʒj;
Extracti Glycyrrhizæ, ʒj;
Acaciæ, q. s. ut fiat massa, in trochiscos singulos grana x pendentes, dividenda.

These lozenges are celebrated for the relief they afford in hoarseness and coughs. SPITTA.

219. *Jackson's Pectoral Lozenges.*

℞. Pulveris Ipecacuanhæ, gr. x;
Antimonii Sulphurati, gr. v;
Morphiæ Muriatis, gr. vj;
Pulveris Acaciæ,
Sacchari,
Pulveris Extracti Glycyrrhizæ, āā ʒxj;
Olei Sassafras, gtt. iv;
Tincturæ Tolutanæ, fʒiv;
Syrupi, q. s.

Fiat massa, in trochiscos cc dividenda.

Each lozenge, weighing ten grains, contains of ipecacuanha, gr. $\frac{1}{20}$; of the precipitated sulphuret, gr. $\frac{1}{40}$; and of the muriate of morphia, gr. $\frac{1}{33}$.

Signa.—One of these to be dissolved in the mouth, when the cough is troublesome. S. Jackson.

SYRUPS.

As cough medicines have to be repeated at short intervals for the purpose of maintaining a gentle impression upon the pulmonary organs, it is desirable to administer them in the most agreeable form. Hence they are generally prescribed as syrups, the sugar in which serves the double purpose of covering the taste and acting as a demulcent to the mucous membrane.

The officinal syrups of garlic, squill, and seneka are given in a dose of a teaspoonful each. They are all slightly stimulant, and in large doses nauseant.

The syrup of wild cherry bark is tonic, astringent and sedative. Its dose is a tablespoonful.

The syrups of gum arabic, of almonds (orgeat), and of Tolu, are used chiefly as demulcents and flavoring agents.

The compound syrup of squill (Coxe's hive syrup) exhibits the anomalous association of a sedative (tartar emetic) with two valuable stimulant expectorants,—squill and seneka. It is more often employed as an emetic for croup, than as an ordinary expectorant.

220. *Syrups of Squills, Seneka, and Ipecacuanha.*

℞. Syrupi Scillæ,
Syrupi Senegæ,
Syrupi Ipecacuanhæ, āā fʒj.

Misce.

Signa.—A teaspoonful every three hours.

This is a favorite combination with many physicians, as it combines the expectorant qualities of the squill and seneka, with the relaxing effect of the ipecacuanha. MORTON.

221. *Syrups of Squill and Ipecacuanha, with Paregoric.*

R. Syrupi Scillæ,
Syrupi Ipecacuanhæ,
Tincturæ Opii Camphoratæ, āā f℥j.
Misce.
Signa.—A teaspoonful every three hours.

This preparation is more relaxing and soothing than the last, and may be given beneficially when the patient has a troublesome cough, with deficient expectoration.

222. *Syrup of Ipecacuanha, American Hellebore, &c.*

R. Syrupi Ipecacuanhæ,
Spiritûs Ætheris Nitrosi, āā f℥ss;
Tincturæ Veratri Viridis, ♏xv.
Misce.
Signa.—Fifteen drops every three hours.

This formula was employed in a large number of cases of pneumonic and bronchial diseases in children, and found to be a most efficient sedative and expectorant. The above dose may be given to a child one or two years old. The pulse must always be watched during the administration of American hellebore. B. F. SCHNECK.

223. *Syrup of Assafetida.*

R. Assafœtidæ, ℥j;
Aquæ bullientis, Oj;
Sacchari, ℔ij.
Triturate the assafetida in a mortar with a portion of the boiling water, until a uniform paste is formed; then gradually add the remainder of the water, strain, and add the sugar, applying a gentle heat to dissolve it.

Dose, a teaspoonful every three hours, for a child five years old.

Each fluidounce contains fifteen grains of assafetida. This preparation will keep a month in the hottest weather. Its taste is less nauseous than the milk of assafetida, and altogether, it is one of the very best modes of administering the fetid drug to children in hooping-cough, I am acquainted with. R. PELTZ.

224. *Another Form.*

℞. Assafœtidæ, ℥ss;
Magnesiæ Carbonatis, ℥vj.
Tere simul et adde gradatim—
Aquæ bullientis, f℥x.
Cola et adde—
Sacchari, ℥xv.
Solve cum leni calore.
Signa.—Dose, a teaspoonful.

As this preparation should measure a pint, each fluidounce will contain fifteen grains of the fetid drug.

J. A. Heintzelman.

225. *Syrup of Wild Cherry Bark and Prussic Acid.*

℞. Syrupi Pruni Virginianæ, f℥iij;
Syrupi Tolutani, f℥j;
Acidi Hydrocyanici diluti, ♏xvj.
Misce.
Signa.—Dose, a dessert-spoonful every three hours.

When well prepared, this syrup represents the tonic and sedative properties of the wild cherry, which render this bark so peculiarly applicable to the treatment of phthisis. The addition of the prussic acid renders the preparation more sedative.

R. P. Thomas.

226. *Syrups of Garlic and Tolu with Paregoric.*

℞. Syrupi Allii,
Syrupi Tolutani, āā f℥j;
Tincturæ Opii Camphoratæ, f℥ij.
Misce.
Signa.—Dose, half a teaspoonful every three hours for a child five years old.

In general properties, garlic bears a close resemblance to squill. This combination may be given with great advantage in the advanced stages of catarrhal complaints of children.

227. *Jackson's Pectoral Syrup.*

℞. Sassafras Medullæ, ℥j;
Acaciæ, ℥j;
Aquæ, Oj.
Macera per horas duodecim, dein adde—
Sacchari, ℥xxj.
Et solve sine calore, cola, et adde—
Morphiæ Muriatis, gr. viij.
Signa.—Take a teaspoonful every three hours.

It is intended that this preparation, when completed, shall measure two pints, and if it does not, the operator is to add the complement of water, so that each fluidounce shall contain one-fourth of a grain of the muriate of morphia. It is much employed in Philadelphia. SAMUEL JACKSON.

228. *Another Form.*

℞. Syrupi Acaciæ, f℥iv;
Morphiæ Muriatis, gr. j;
Olei Sassafras, gtt. j.
Misce.
Signa.—Dose, a teaspoonful every three hours.

This is a convenient form for the extemporaneous preparation of Jackson's Pectoral Syrup.

229. *Substitute for Aubergier's Syrup.*

℞. Syrupi Lactucarii, f℥ij;
Syrupi Acaciæ, f℥jss;
Syrupi Aurantii Florum, f℥ss.
Misce.
Signa.—A teaspoonful every three hours.

This is a mild anodyne syrup, and is useful in bronchitis, catarrhus senilis, and consumption.

MIXTURES.

230. *Brown Mixture.*

℞. Pulveris Extracti Glycyrrhizæ,
Pulveris Acaciæ, āā ℥ij;
Aquæ ferventis, f℥iv.
Fiat mistura, et adde—
Spiritûs Ætheris Nitrosi, f℥j;
Vini Antimonii, f℥ij;
Tincturæ Opii, ♏xl.
Signa.—A tablespoonful for a dose.

A preparation very similar to this is now officinal under the name of *Mistura Glycyrrhizæ Composita*. It is used in catarrh, bronchitis, consumption, &c.

231. *Mixture of Syrup of Squill, &c.*

℞. Syrupi Scillæ, f℥ss;
Tincturæ Opii Camphoratæ, f℥ij;
Vini Antimonii, f℥j;
Aquæ destillatæ, f℥iij.
Misce.
Signa.—A teaspoonful every three hours.
This is more particularly designed for children.

232. *Mixture of Squill, Morphia, and Prussic Acid.*

℞. Morphiæ Muriatis, gr. j;
Acidi Muriatici diluti, ♏v;
Acidi Hydrocyanici diluti, ♏xxx;
Syrupi Scillæ,
Aquæ, āā f℥j.
Misce.
Signa.—Dose, a teaspoonful when the cough is troublesome.
Used in phthisis. T. Thompson.

233. *Mixture of Seneka, Squill, Tartar Emetic, &c.*

℞. Decocti Senegæ, f℥iv;
Syrupi Ipecacuanhæ, f℥j;
Syrupi Scillæ, f℥ss;
Antimonii et Potassæ Tartratis, gr. j.
Fiat mistura.
Signa.—A teaspoonful for children of two years of age and upwards.
In croup.

234. *Mixture of Seneka, Ammoniac, and Tolu.*

℞. Decocti Senegæ, f℥vj;
Syrupi Tolutani, f℥j;
Ammoniaci, ℥ss.
Misce secundum artem.
Signa.—A tablespoonful every two hours.
In catarrh.

235. *Mixture of Ammoniac and Squill.*

℞. Ammoniaci,
Extracti Glycyrrhizæ, āā ℥ss;
Aceti Scillæ, f℥ss;
Aquæ Fœniculi, f℥vss.
Fiat mistura.
Signa.—A tablespoonful every two hours.

This is a stimulant preparation, useful in chronic bronchitis and senile catarrh.

236. *Mixture of Hemlock, Paregoric, and Tolu.*

℞. Extracti Conii Fluidi, f℥ij;
Tincturæ Opii Camphoratæ,
Syrupi Tolutani, āā f℥ss;
Aquæ Rosæ, f℥iv.
Misce.
Signa.—Thirty drops may be given once in four hours to a child a year old, watching the effect.

Dr. Pearson, in his work on pertussis, recommends the above as a valuable formula.

237. *Almond Emulsion, Ipecacuanha, &c.*

℞. Misturæ Amygdalæ, f℥v;
Vini Ipecacuanhæ,
Tincturæ Scillæ, āā f℥ij;
Syrupi Tolutani, f℥ss.
Misce.
Signa.—Take a tablespoonful whenever the cough is urgent.

Used in chronic bronchitis and consumption.

238. *Mixture of Liverwort, Hemlock, and Orgeat Syrup.*

℞. Extracti Hepaticæ Fluidi (*Thayer*), f℥j;
Extracti Conii Fluidi, f℥j;
Syrupi Amygdalæ, f℥iij.
Misce.
Signa.—Give a dessert-spoonful every four hours.

Liverwort is a mild expectorant and deobstruent. It has been found useful in chronic coughs and bronchitis.

239. *Mixture of Syrups of Gillenia and Tolu.*

℞. Syrupi Gilleniæ (*Parrish*),
Syrupi Tolutani, āā f℥j.
Misce.
Signa.—Dose, a teaspoonful.

The Gillenia has long been celebrated as an indigenous emetic, and like ipecacuanha, as an expectorant in small doses. It is best adapted to cases in which expectoration is not freely established.

240. *Mixture of Sal Ammoniac, Squills, &c.*

℞. Ammoniæ Muriatis, ℥ss;
Pulveris Acaciæ, ℥ij;
Pulveris Extracti Glycyrrhizæ, ℥iij;
Aquæ, f℥vjss;
Spiritûs Ætheris Nitrosi, f℥jss;
Aceti Scillæ, f℥iij.
Fiat mistura.
Signa.—A dessert-spoonful every two hours.

A stimulating expectorant and alterative, useful in the advanced stages of bronchial disease. GOEDEN.

241. *Mixture of Naphthaline.*

℞. Naphthalinæ, gr. xvj.
Alcoholis, q. s. ut fiat solutio.
Dein adde—
Syrupi, f℥iv.
Misce.
Signa.—Take a tablespoonful every two hours.

This is a stimulating expectorant, useful in chronic catarrh, humoral asthma, &c. DUPASQUIER.

242. *Mixture of Oil of Amber and Tolu.*

℞. Olei Succini rectificati, f℥j;
Pulveris Acaciæ,
Sacchari, āā ℥ss;
Aquæ destillatæ, f℥iv;
Tincturæ Tolutanæ, f℥ij.
Fiat mistura secundum artem.
Signa.—A tablespoonful every two or three hours.

In spasmodic cough.

243. *Mixture of Bloodroot, Wild Cherry Bark, &c.*

℞. Morphiæ Acetatis, gr. iij;
Tincturæ Sanguinariæ, f℥ij;
Vini Antimonii,
Vini Ipecacuanhæ, āā f℥iij;
Syrupi Pruni Virginianæ, f℥iij.
Misce.
Signa.—Dose, a teaspoonful.

Used in catarrhal affections, bronchitis, and influenza.
J. C. AYER.

244. *Mixture of Wild Cherry, Morphia, &c.*

℞. Morphiæ Acetatis, gr. ij;
Acidi Acetici diluti, f℥j;
Syrupi Pruni Virginianæ,
Syrupi Ipecacuanhæ,
Syrupi Tolutani, āā f℥j.
Misce.
Signa.—A teaspoonful every three hours.

This is an excellent combination for the treatment of catarrhal affections and chronic bronchitis.

245. *Mixture of Tartar Emetic and Laudanum.*

℞. Antimonii et Potassæ Tartratis, gr. j;
Aquæ destillatæ, f℥j;
Tincturæ Opii, ♏xx.
Misce.
Signa.—Give a teaspoonful at bedtime to a child five years old.

Prescribed in hooping-cough. SIR WM. WATSON.

246. *Mixture with Bicarbonate of Soda, &c.*

℞. Sodæ Bicarbonatis, gr. xij;
Vini Ipecacuanhæ, ♏xx;
Tincturæ Opii, ♏iv;
Syrupi,
Aquæ destillatæ, āā f℥ss.
Misce.
Signa.—Give a teaspoonful every three hours.

This preparation is designed for children, and is chiefly used in hooping-cough.

247. *Cochineal Mixture.*

℞. Potassæ Carbonatis, ℈j;
Pulveris Cocci, ℈ss;
Sacchari, ℥j;
Aquæ destillatæ, f℥iv.
Fiat solutio.
Signa.—Dose for children, a teaspoonful every two or three hours.

An effectual remedy in hooping-cough. N. CHAPMAN.

248. *Mixture of Lobelia, Squill, and Belladonna.*

℞. Tincturæ Lobeliæ,
Syrupi Scillæ, āā f℥j;
Extracti Belladonnæ, gr. iv.
Misce.
Signa.—Dose, thirty drops four times daily.

This combination has afforded great relief in hooping-cough, especially during the second stage. The dose specified is for a child five or six years old. W. Herbst.

249. *Mixture of Assafetida, &c.*

℞. Assafœtidæ, ℥j;
Aquæ, f℥iv.
Fiat mistura, et adde—
Tincturæ Tolutanæ, f℥ss;
Tincturæ Opii, ♏xl.
Signa.—A teaspoonful to a child every two hours, and a dessert-spoonful (or more) as frequently to an adult.

This preparation is of great value in pertussis and other spasmodic diseases of the chest. S. G. Morton.

250. *Mixture of Bloodroot, Naphtha, &c.*

℞. Tincturæ Sanguinariæ, f℥j;
Tincturæ Opii Camphoratæ, f℥ij;
Spiritûs Pyroxilici, *Dub.* f℥ss;
Potassæ Nitratis, ℥ss;
Aquæ, f℥j.
Misce.
Signa.—A teaspoonful every two hours.

This is a modification of a formula of Dr. E. H. Sholl, who speaks in the most favorable terms of the value of bloodroot in pneumonia, croup, hooping-cough, &c. It is one of the most powerful medicinal agents. It is violently emetic in large doses, but in the quantity recommended is said to produce diaphoresis and effects analogous to those of digitalis.

251. *Syrup with Sulphate of Sanguinarina.*

℞. Sanguinarinæ Sulphatis, gr. j;
Aquæ, f℥j.
Solve et adde—
Syrupi, f℥xv.
Misce.
Signa.—A teaspoonful every three hours.

Sanguinarina, the active principle of the bloodroot, is an excellent expectorant. In consequence of its acrid taste, it should be combined with a large quantity of syrup. It causes a sensation of warmth and uneasiness in the throat and stomach, but acts as a sedative to the heart.

R. P. Thomas.

252. *Mixture of Wood Naphtha and Morphia.*

℞. Spiritûs Pyroxilici. *Dub.*, ℥ij;
Liquoris Morphiæ Muriatis. *Ed.*, ℥iij;
Aquæ destillatæ. ℥v. ℥iij.
Fiat mistura.
Signa.—Dose, a tablespoonful three times daily.

Prescribed in bronchitis with profuse expectoration, and in phthisis. Laycock.

253. *Mixture of Ammoniac, Squill, and Paregoric.*

℞. Ammoniaci. ʒj;
Aquæ destillatæ. ℥iv.
Fiat mistura, et adde—
Syrupi Scillæ. ℥ij;
Tincturæ Opii Camphoratæ. ℥ss.
Misce.
Signa.—A tablespoonful may be given every two hours.

A stimulating expectorant, useful in chronic bronchitis, senile catarrh, &c.

254. *Mixture of Assafetida and Acetate of Ammonia.*

℞. Assafetidæ. ʒss;
Liquoris Ammoniæ Acetatis,
Aquæ Menthæ Viridis, ää ℥ij.
Fiat mistura.
Signa.—A teaspoonful to children, and a tablespoonful to adults, in coughs.

This simple solution of assafetida was frequently employed by the elder physicians, and was found to answer every purpose of more complicated prescriptions.

255. *Mixture of Copaiba and Balsam of Tolu.*

℞. Copaibæ.
Balsami Tolutani.
Pulveris Acaciæ, ää ʒss;
Aquæ destillatæ, ℥vj;
Acidi Sulphurici Aromatici, ♏xx.
Fiat mistura secundum artem.
Signa.—Dose, a tablespoonful.

In chronic catarrh and hooping-cough. When there is hectic excitement, digitalis may be added.

256. *Mixture of Balsam of Peru.*

℞. Balsami Peruviani, ℥ss;
Pulveris Acaciæ,
Sacchari, āā ℥ij;
Aquæ Cinnamomi,
Aquæ destillatæ, āā f℥iij.
Misce.
Signa.—A tablespoonful four times a day.

The different *balsams* were at one time almost proscribed from the class of expectorants, on account of their stimulating qualities; but they are now much employed in diseases of the pulmonary mucous membrane.

257. *Tar Water.*

℞. Picis liquidæ, Oij;
Aquæ, Cong. j.
Mix and stir them together with a wooden rod for an hour; then let the tar subside, strain the water and keep it in well-corked bottles.—A pint, or even two pints, may be taken daily in divided doses; but in cases of bronchial irritation, the dose must be greatly diminished.

258. *Mixture of Oil of Tar.*

℞. Olei Picis liquidæ, f℥ij;
Magnesiæ Carbonatis, ℈ij.
Tere simul, et adde gradatim—
Aquæ, f℥xiv.
Cola et adde—
Syrupi, f℥ij.
Misce.
Signa.—A wineglassful to be taken four times daily.

This is probably the most effectual of the tar preparations, and may be resorted to beneficially in cases of senile catarrh, chronic bronchitis, and consumption. B. J. Crew.

259. *Mixture of Gum Ammoniac and Nitric Acid.*

℞. Ammoniaci, ℈ijss;
Acidi Nitrici diluti, f℥ij;
Aquæ, f℥viij.
Misce.
Signa.—A tablespoonful to be taken four times a day.

This preparation is strongly recommended in protracted

catarrh and phthisis pulmonalis, by Dr. J. Stuart, author of a treatise on Colds.

260. *Spermaceti Mixture.*

℞. Cetacei, ℥ij;
Sacchari, ℥iij;
Vitellum unius Ovi.
Tere simul, et adde gradatim—
Tincturæ Opii Camphoratæ, f℥ss;
Aquæ, f℥viij.
Misce.
Signa.—A tablespoonful for a dose, four or five times a day.

Used in catarrh.

261. *Syrup of Tolu with Belladonna, &c.*

℞. Tincturæ Belladonnæ,
Vini Ipecacuanhæ, āā f℥ij;
Syrupi Senegæ, f℥ss;
Syrupi Tolutani, f℥iij.
Misce.
Signa.—Take a teaspoonful three or four times a day, freely using gum-water acidulated with lemon-juice.

In coughs.

262. *Flaxseed Tea.*

℞. Lini, ℥j;
Radicis Glycyrrhizæ contusæ, ℥ss;
Aquæ bullientis, Oj.
Macera per horas duas in vase leviter clauso, cola et adde—
Succi Limonis, f℥j.
Misce.

This may be given as a common drink in catarrh.

263. *Decoction of Iceland Moss.*

℞. Cetrariæ, ℥j;
Aquæ, Ojss.
Coque ad Oj, et cola.

This article once acquired great celebrity in coughs; but was overrated, and lost its reputation. It contains a bitter principle, which is sometimes an advantage in dyspepsia and phthisis. If freed from this, by macerating before boiling, and throwing the first liquor away, as is sometimes done, the preparation is reduced to a mere demulcent, and has no advantages over other members of that class.

264. *Mixture of Prussic Acid.*

℞. Acaciæ, ℥ss;
Aquæ, f℥vijss.
Fiat mistura, et adde—
Syrupi Tolutani, f℥ss;
Acidi Hydrocyanici diluti, gtt. xij.
Fiat mistura.
Signa.—Take a tablespoonful every three hours.

Used to allay cough in consumption.

This is "a medium dose," which I prefer in commencing the use of so powerful a medicine.—S. G. Morton, *Illustrations of Pulmonary Consumption*, p. 132.

We cannot enjoin too much caution in the use of all the preparations of prussic acid, some of which are extremely variable in themselves, and all produce very unequal effects on different constitutions. It is questionable whether the practice of medicine has gained anything by their adoption into the Materia Medica.

265. *Mixture of Cyanide of Potassium.*

℞. Potassii Cyanidi, gr. j;
Aquæ destillatæ, f℥iijss;
Syrupi Limonis, f℥ss.
Misce.
Signa.—Dose, a tablespoonful every two hours.

In this formula by Mr. Donavan of Dublin, the lemon syrup is added for the purpose of securing the formation of hydrocyanic acid, by its chemical action on the cyanide. Employed to check vomiting, and allay cough; and, in much smaller doses, in the hooping-cough of children.

266. *Mixture of Lobelia and Prussic Acid.*

℞. Tincturæ Lobeliæ, f℥j;
Acidi Hydrocyanici diluti, gtt. j.
Misce.
Signa.—To be taken at a dose, three or four times a day.

Highly serviceable in asthma and (in smaller doses) in hooping-cough. Livezey.

267. *Mixture of Gum Ammoniac, Castor, &c.*

℞. Misturæ Ammoniaci, f℥iij;
Tincturæ Castorei, f℥ss;
Syrupi Tolutani, f℥ss;
Tincturæ Opii, ♏xxx;
Aquæ Cinnamomi, f℥j.
Fiat mistura.
Signa.—A small tablespoonful every four hours, in troublesome cough. C. D. Meigs.

268. *Mixture of Morphia, Squill, and Tolu.*

℞. Syrupi Scillæ, f℥jss;
Syrupi Tolutani, f℥ss;
Morphiæ Acetatis, gr. j.
Misce.
Signa.—A teaspoonful may be taken every three hours.

In phthisis and other diseases attended with cough.

269. *Mixture of Tolu, Morphia, and Tartar Emetic.*

℞. Mucilaginis Acaciæ, Oj;
Syrupi Tolutani, f℥ij;
Morphiæ Sulphatis, gr. ij;
Antimonii et Potassæ Tartratis, gr. ij.
Misce.
Signa.—A tablespoonful to be given every two hours.
S. G. Morton *on Consumption*, p. 123.

270. *Glycerine with Morphia and Iodide of Iron.*

℞. Morphiæ Sulphatis, gr. iij;
Syrupi Ferri Iodidi, f℥ss;
Glycerinæ, f℥iijss.
Misce.
Signa.—A teaspoonful every four hours.

This is particularly serviceable in the advanced stages of consumption, to arrest the emaciation, and allay the cough.
N. S. Davis.

271. *Syrup of the Hypophosphites of Lime, Soda, &c.*

℞. Calcis Hypophosphitis, ʒvj;
Sodæ Hypophosphitis,
Potassæ Hypophosphitis, āā ʒij;
Aquæ ferventis, fʒx.
Solve, cola et adde—
Sacchari, ʒxiv.
Solve leni calore, cola et adde—
Aquæ Aurantii Florum, fʒss.
Misce.
Signa.—Dose, a teaspoonful every three hours.

Dr. Churchill has directed the attention of the profession to the value of the hypophosphites in the treatment of consumption. A glycerole could be readily formed by substituting glycerine for a portion of the water and sugar in this formula. Each dose contains about five grains of the mixed salts. E. Parrish.

272. *Infusion of Tar and Hops.*

℞. Infusi Picis liquidæ, Oij;
Humuli, ʒss.
Misce, macera per horas duas, et cola.
Signa.—Dose, a wineglassful morning, noon, and night.

This is a useful tonic and expectorant in consumption.

INHALATION.

Inhalation is a means of applying remedies directly to the lungs. A good instrument for this purpose is the inhaler of Mudge; but as a substitute the common teapot may be used, or a funnel inverted over a bowl. The substances usually selected for inhalation are, the steam of warm water; the steam of vinegar, produced by pouring it into boiling water; and various other articles next to be enumerated.

273. *Inhalation of Balsam of Tolu.*

℞. Balsami Tolutani, ʒj;
Aquæ bullientis, Oj.
Misce.
Signa.—Inhale the vapor through an inverted funnel.

274. *Inhalation of Tolu and Ether.*

℞. Balsami Tolutani, partem. j:
Ætheris, partes, iij.
Solve.

Signa.—The solution should be placed in a wide-mouthed bottle, from which the patient is to inhale freely several times a day, in chronic catarrh, aphonia, and chronic affections of the chest. ROZIERE.

275. *Ethereal Tincture of Iodine and Hemlock for Inhalation.*

℞. Iodinii, gr. viij:
Pulveris Conii, gr. xvj;
Ætheris, f℥ij.
Misce et macera per horas viginti quatuor.

Signa.—Half a teaspoonful at a time is to be breathed from a wineglass grasped in the warm hand, and repeated twice or thrice a day. If it does not affect the head, the quantity inhaled may be gradually increased to a teaspoonful.

Used in chronic bronchitis and consumption.
S. G. MORTON.

276. *Scudamore's Iodine Mixture for Inhalation.*

℞. Iodinii,
Potassii Iodidi, āā gr. vj;
Aquæ destillatæ, f℥v, f℥vj;
Alcoholis, f℥j.
Misce.

I usually commence with a drachm of this mixture, proceeding gradually to the extent of half an ounce (rarely more), putting two-thirds the dose for the first half of the time (10, 15, or 20 minutes), and the other third for the remainder, always adding thirty minims of a saturated tincture of conium, with an increase, if the cough be very irritable. Occasionally, I add some saturated tincture of ipecacuanha: and when the respiration is spasmodically affected, some ethereal tincture of lobelia inflata. SIR C. SCUDAMORE.

277. *Mixture of Lugol's Solution and Hops for Inhalation.*

℞. Liquoris Iodinii Compositi, f℥ij:
Tincturæ Humuli, f℥iv.
Misce.

Signa.—A tablespoonful is added to two fluid ounces of hot water in an inhaler, or in a cup covered with an inverted funnel. The amount of inhalation will have to be determined in each case by the sensations produced. In some instances great relief is afforded, but in others a sense of suffocation may occur, if the inhalation be prolonged.

278. *Inhalation of Tar.*

℞. Picis liquidæ, ℥xvj;
Liquoris Potassæ, f℥j.
Misce.

"The two ingredients being well mixed, should be first boiled for a few minutes in the open air, in order to disengage any impurities, and then be kept at a simmer in the room of the patient. This is effected by putting the mixture in an iron vessel, and placing the latter over a spirit-lamp, or some analogous contrivance. In this way, not only a chamber, but an entire house, is speedily pervaded by a most agreeable vapor, which, although it may at first excite some disposition to cough, both in healthy and sick persons, very soon, in a majority of cases, allays this symptom, and with it a great proportion of the patient's distress."—*Morton on Consumption.*

Sir A. Crichton.

279. *Rosin Inhalation.*

The fumes of rosin were much employed by the late Dr. Joseph Parrish, of this city; he directed it to be put on a hot shovel or coals, and allow the patient gradually to inhale them. To some persons, rosin is very agreeable, while the lungs of others cannot tolerate it.

280. *Arsenical Inhalation.*

℞. Sodæ Arseniatis, ℥ss;
Aquæ destillatæ, f℥v.
Solve.
Signa.—Arsenical solution.

Thirty slips of bibulous paper of a determinate size (about six inches by four inches), are dipped into the arsenical solution, and are then dried and rolled into the form of cigars. Thus prepared, each cigar represents a known weight of the arseniate, about one grain.

"The patient, having lighted a cigar, draws the smoke into his mouth, and, by a gentle inspiration, permits it to enter the lungs. At first, he may take four or five inspirations, thrice daily; and, as he becomes accustomed to the impression, he increases their number.

"If there be much oppression, stramonium leaves may be rolled up with the arsenicated papers."

This inhalation has been of some service in consumption, but it is in old catarrhs, chronic bronchitis, and laryngeal disease, that its effects are the most striking.

Trousseau.

281. *Mercurial Inhalation.*

℞. Hydrargyri Oxidi rubri, ℈j.

Heat gradually on the point of a spatula, over a spirit-lamp, and conduct the fumes to the mouth or nostrils by means of an inverted glass funnel.

Used in ozæna and syphilitic affections of the mouth or throat, as well as in chronic diseases of the air-passages.

282. *Stramonium Inhalation.*

Stramonium inhalation is particularly serviceable in asthma. The leaves, deprived of their midribs, are dried, cut, and smoked in a common tobacco pipe. Persons unaccustomed to the remedy find one pipe sufficient, while others can bear three or four in the course of a day, during a fit of the asthma.

The Parisian pharmaceutists prepare anti-asthmatic cigarettes, by moistening the stramonium leaves with a strong infusion of opium. The leaves are then dried, cut, and rolled in strips of paper, and the ends are twisted.

Some patients are annoyed by the copious production of smoke in the combustion of stramonium. To obviate this inconvenience, M. Dannecy, of Bordeaux, waters the leaves (previously dried and spread out) with a solution of nitrate of potassa, in the proportion of three ounces of the salt to two pounds avoirdupois of the plant.

By this process, the combustion is rendered more complete and less annoying, and the patient experiences additional benefit from the fumes of the saltpetre.

In fact, many asthmatics have learned by practical experience that no remedy affords more certain and prompt relief for their sufferings than the ignition in their chambers of slips of paper previously saturated with nitrate of potassa and dried. R. P. T.

283. *Inhalation of Chlorine.*

Chlorine gas has also been much used by inhalation, not pure, however, but mixed or diluted with atmospheric air. For this purpose, a little acid of any kind may be dropped gently on a mixture of chloride of lime, by which means the chlorine is gradually disengaged, and is inhaled as it rises; or the air of a room may be pervaded with it in like manner. It has been much commended in bronchitis and the kindred affections, but is getting into disuse from its manifest inefficiency.

CLASS VII.

EMMENAGOGUES.

Emmenagogues are those medicines which promote the menstrual discharge, or restore it when entirely suppressed. Although by some authors the specific action of these medicines on the uterus has been questioned, if not denied; yet by others, of equal authority, it has been fully acknowledged.

It must, however, be observed, that amenorrhœa occurs under opposite states of the system; and when general debility appears to be the cause of the local disease, it may be advisable to accompany the emmenagogue with an active course of tonics. While, on the contrary, if the obstruction be the effect of a plethoric habit, bleeding, cathartics, &c., are essential preliminaries to the successful exhibition of a specific remedy.

POWDERS AND PILLS.

284. *Powder of Aloes, Canella, and Serpentaria.*

℞. Pulveris Aloës Barbadensis, ʒj;
Pulveris Canellæ, gr. xviij;
Pulveris Serpentariæ, gr. xij.
Misce, et divide in pulveres vj.
Signa.—One every night, at bedtime, in syrup.

This compound, which is one form of the *hiera picra* of the shops, forms a very good purgative, and is usually employed as an emmenagogue.

285. *Powder of Savin, Sulphate of Potassa, &c.*

℞. Pulveris Sabinæ,
Pulveris Zingiberis, āā ʒj;
Potassæ Sulphatis, ʒij.
Fiant pulveres vj.
Signa.—One to be taken thrice a day.

Savin is an excellent stimulant emmenagogue, and when administered just before the menstrual period, often aids in producing the flow.

286. *Powder of Savin and Cantharides.*

℞. Pulveris Sabinæ, ʒj;
Pulveris Cantharidis, gr. ij.
Misce, et divide in pulveres iv.
Signa.—One to be taken every night on going to bed, watching its effects.

Used in amenorrhœa.

287. *Powder of Savin and Ergot.*

℞. Pulveris Ergotæ,
Pulveris Sabinæ, āā ℈ij.
Misce, et divide in chartulas iv.
Signa.—One may be taken morning and night.

This is a good combination for aiding in the restoration of the menstrual discharge.

288. *Powder of Savin, Borax, and Ginger.*

℞. Pulveris Sabinæ,
Pulveris Zingiberis, āā gr. vij;
Sodæ Boratis, gr. xv.
Fiat pulvis.

This powder is to be taken twice a day, in amenorrhœa with a languid pulse. THOMSON.

289. *Compound Pills of Iron and Myrrh.*

℞. Myrrhæ, ʒij;
Potassæ Carbonatis, ʒj.
Tere simul, dein adde—
Ferri Sulphatis, ʒj;
Sacchari, ʒj.
Fiat massa, et divide in pilulas lxxx.

Two or three pills are given three times a day in amenorrhœa and chlorosis. HULSE.

290. *Hooper's Pills.*

℞. Ferri Sulphatis exsiccatæ, ℥j;
Pulveris Jalapæ, gr. xv;
Pulveris Aloës et Canellæ, ℥j;
Myrrhæ, gr. viij;
Syrupi, q. s.
Fiat massa, et divide in pilulas l.

Of these pills two or three are taken at bedtime, for several nights successively. They purge smartly, and I presume it is by virtue of this property they operate so beneficially as an emmenagogue. N. Chapman.

291. *Pills of Digitalis, Myrrh, and Iron.*

℞. Pulveris Digitalis, gr. x;
Myrrhæ, gr. xx;
Ferri Sulphatis exsiccatæ, gr. x;
Syrupi, q. s.
Fiat massa, et divide in pilulas x.
Signa.—Take one pill three times daily.

Dr. S. Ashwell recommends these pills in amenorrhœa combined with epilepsy.

292. *Pills of Aloes, Sulphate of Iron, and Cloves.*

℞. Ferri Sulphatis exsiccatæ, ℈j;
Pulveris Aloës Socotrinæ, ℈ij;
Pulveris Caryophylli, gr. v;
Terebinthinæ Venetæ, q. s. ut fiant pilulæ xx.
Signa.—One to be taken three times a day.

In amenorrhœa.

293. *Pills of Citrate of Iron and Strychnia.*

℞. Ferri et Strychniæ Citratis, gr. l;
Extracti Gentianæ, gr. x.
Fiat massa, et divide in pilulas xxx.
Signa.—One pill three times daily.

This double salt is not officinal, and therefore liable to vary in strength. As made in Philadelphia, fifty grains of the compound salt contain one grain of strychnia. It is an exceedingly valuable remedy in chlorosis and amenorrhœa.

FLUID PREPARATIONS.

294. *Decoction of Seneka Snakeroot.*

℞. Senegæ contusæ, ℥j ;
Aquæ, Oj.
Coque ad f℥xij, dein adde—
Aurantii Amari Corticis, ℥ss.
Macera per horam dimidiam, et cola.

Dr. Chapman observes: "My rule in the administration of this medicine in amenorrhœa is, to give about four ounces of the decoction, more or less, during the day, according to the circumstances of the case. But at the time when the menstrual effort is expected to be made, and until the discharge is actually induced, I push the dose as far as the stomach will allow, having given as much as two ounces every hour."—*Therapeutics*, vol. ii, p. 38.

295. *Infusion of Ergot.*

℞. Ergotæ contusæ, ℥ij ;
Aquæ bullientis, f℥iv.
Fiat infusum et cola.
Signa.—To be given by tablespoonfuls every fifteen minutes in protracted parturition occasioned by deficiency of contractile power in the uterus.

For the same purpose the powder may also be given in doses of twenty grains, as well to assist in arresting uterine hemorrhage as to promote the expulsion of the placenta.

N. Chapman.

296. *Mixture of Oil of Erigeron.*

℞. Pulveris Acaciæ,
Sacchari, āā ℥ij ;
Aquæ, f℥j.
Tere simul, et adde gradatim—
Olei Erigerontis Canadensis, ℥j ;
Aquæ Menthæ Viridis, f℥ij.
Fiat mistura.
Signa.—A dessert-spoonful every two hours.

Dr. E. Wilson and others report favorably of the use of this oil in menorrhagia, uterine hemorrhage, and irritable bladder.

A. C. Bournonville.

297. *Decoction of Cotton Root.*

℞. Gossypii Radicis contusi, ℥iv;
Aquæ bullientis, Oij.
Misce, coque ad Oj, et cola.
Signa.—Dose, a wineglassful.

When employed to promote uterine contraction, as a substitute for ergot, Dr. Bouchelle directs this dose to be repeated every twenty minutes. Dr. T. J. Shaw administers the same quantity every hour in dysmenorrhœa. He has great confidence in the emmenagogue properties of cotton root.

298. *Decoction of Madder.*

℞. Pulveris Rubiæ, ℥j;
Aquæ bullientis, Oj.
Digere per horam dimidiam, et adde—
Caryophylli contusi, ℥j.
Signa.—When cool, strain, and give a wineglassful every three hours, a short time before the expected return of the menstrual discharge.—*See Dewees on Females*, p. 74.

299. *Mixture of Camphor.*

℞. Camphoræ, ℈j;
Alcoholis, q. s. ut fiat pulvis.
Dein adde—
Pulveris Acaciæ,
Sacchari, āā ℥j;
Aquæ Cinnamomi, f℥j.
Fiat mistura.

This mixture would more properly appear under the head of Narcotics, but as Dr. Dewees considers it particularly efficacious in dysmenorrhœa, we have given it a place with Emmenagogues. He directs "one-half the above draught to be given the instant pain is experienced, and if not relieved in an hour or two, the remainder to be given."—*Syst. of Midwifery*, p. 158.

300. *Mixture of Ergotine.*

℞. Extracti Ergotæ Aquosi, gr. xv;
Syrupi Aurantii Corticis, f℥j;
Aquæ, f℥iij.
Misce.
Signa.—Dose, a tablespoonful.

In uterine hemorrhage this dose should be given every ten or fifteen minutes, until arrested. The remedy has also proved serviceable in other forms of hemorrhage.

BONJEAN.

301. *Saturated Wine of Ergot.*

℞. Ergotæ contusæ, ℥ij;
Vini Xerici, Oss.
Macera per dies decem, et cola.
Signa.—Dose, a teaspoonful every two hours.

Many practitioners of Philadelphia, who have been disappointed in the effects of the officinal wine, have found this preparation more reliable in the treatment of menorrhagia, and the hemorrhage attendant upon abortion.

C. H. Needles.

302. *Mixture of Cantharides, Ammonia, and Gentian.*

℞. Tincturæ Gentianæ Compositæ, f℥jss;
Tincturæ Cantharidis, f℥j;
Spiritûs Ammoniæ Aromatici, f℥iij.
Misce.
Signa.—Give a teaspoonful three times daily.

Useful in chlorosis and hysterical depression.

S. Ashwell.

303. *Tinctures of Black Hellebore, Myrrh, and Cantharides.*

℞. Tincturæ Hellebori, f℥ss;
Tincturæ Myrrhæ, f℥j;
Tincturæ Cantharidis, f℥ij.
Fiat mistura.
Signa.—Dose, thirty drops, three times a day, in a little sugar and water.

Recommended in amenorrhœa.

304. *Dewees's Tincture of Guaiacum.*

℞. Pulveris Guaiaci Resinæ, ℥iv;
Sodæ vel Potassæ Carbonatis, ℥jss;
Pulveris Pimentæ, ℥j;
Alcoholis diluti, Oj.
Misce. "Digest for a few days. The volatile spirit of ammonia to be added *pro re nata*, in the proportion of a drachm or two, to every four ounces of tincture."

The above formula is different from that adopted in the Pharmacopœias, for which reason we have inserted it here. Dr. Dewees remarks that, after nearly thirty-five years' experience with this tincture, he has never known it to fail in restoring the *suppressed catamenia*, when the suppression was an *idio-*

pathic disease. He gives it morning, noon, and night, in doses of a teaspoonful in a little sweetened milk; and sometimes in a little Madeira, Sherry, or Teneriffe wine. It is occasionally necessary to continue the medicine for some weeks, on which occasion, the dose must be judiciously augmented.—*Syst. of Midwifery*, p. 149.

305. *Volatile Tincture of Guaiacum and Copaiba.*

℞. Tincturæ Guaiaci Ammoniatæ, f℥j;
Copaibæ, f℥ss.
Misce.
Signa.—A teaspoonful two or three times a day.

In cases of amenorrhœa connected with general debility.

306. *Saturated Tincture of Iodine.*

℞. Iodinii, ℈ij;
Alcoholis, f℥j;
Spiritûs Lavandulæ Compositi, f℥ij.
Fiat tinctura.
Signa.—From five to ten drops in sweetened water twice a day, gradually increasing the dose.

We are informed by Mr. Elias Durand, a pharmaceutist of this city, that the above is a saturated tincture. It is prescribed in amenorrhœa, gonorrhœa, leucorrhœa, &c.

From its great activity it requires to be cautiously administered. S. G. Morton.

307. *Tinctures of Iron, Aloes and Myrrh, and Castor.*

℞. Tincturæ Ferri Chloridi,
Tincturæ Aloës et Myrrhæ, āā f℥ss;
Tincturæ Castorei, f℥ij.
Misce.
Signa.—Take thirty drops three times a day.

This combination of iron and castor, with the elixir proprietatis, is indicated in general debility and chlorosis, and the attendant suppression of the menses. It may be given in sweetened water, or in cold chamomile tea.

308. *Tincture of Hiera Picra.*

℞. Pulveris Aloës et Canellæ, ʒjss;
Spiritûs Vini Gallici, Oj.
Macera per dies decem et cola.
Signa.—A teaspoonful may be taken three times a day in sugar and water.

A popular and most efficient remedy in amenorrhœa.

309. *Emmenagogue Suppository.*

℞. Olei Theobromæ, ʒij;
Pulveris Aloës Capensis, ʒss;
Castorei,
Assafœtidæ, āā ʒij.
Fiant suppositoria xxv.

One to be employed daily for several days at the expected period of the menses. RICHARD.

CLASS VIII.

ANTHELMINTICS.

ANTHELMINTICS are medicines employed to destroy and bring away worms from the alimentary canal. They are also termed Vermifuges.

The only unequivocal proof of the existence of worms in the alimentary canal, is the ejection of some of them *per anum*, or, as sometimes happens, by the mouth. When, in such cases, vermifuges are resorted to, they must be persevered in for several days, with the occasional intervention of an active cathartic.

POWDERS, PILLS, AND LOZENGES.

310. *Calomel with Gamboge.*

℞. Hydrargyri Chloridi Mitis, gr. v;
Pulveris Gambogiæ, gr. iij.
Misce.
Signa.—For an adult. To be taken in syrup at bedtime.

Gamboge is sometimes given in doses of fifteen or twenty grains for the tape-worm, and is highly spoken of in such cases.

311. *Calomel with Pinkroot.*

℞. Hydrargyri Chloridi Mitis, gr. iv;
Pulveris Spigeliæ, gr. x.
Misce.
Signa.—To be taken two mornings in succession, and on the afternoon of the second day, followed by a dose of castor oil, or senna and manna.—For children upwards of four years old.

312. *Powders of Pinkroot, Savine, and Senna.*

℞. Pulveris Spigeliæ,
Pulveris Sennæ, āā ℈ij;
Pulveris Sabinæ, gr. xij.
Fiant chartulæ vj.
Signa.—One every morning till three are taken, then give a dose of castor oil; if the effect is not produced, the remainder may be exhibited after the same manner.

313. *Powders of Common Salt and Cochineal.*

℞. Sodii Chloridi, ℥iij;
Cocci in pulverem redacti, gr. xv.
Fiant pulveres vj.
Signa.—One every morning for six days, following the last dose with some purgative medicine.

Dr. Rush speaks in high terms of this preparation for the expulsion of the long round worms.

314. *Powders of Santonin.*

℞. Santonini, gr. vj;
Sacchari, gr. xv.
Misce, et divide in pulveres vj.
Signa.—Give one powder night and morning to a child five years old, for worms.

"In many cases the worms are passed, says Dr. Wells, on the following morning, but not unfrequently it is necessary to give a second dose on the succeeding evening."

A case of poisoning from three grains in two doses, occurred in a child four years old. (*N. Y. Journ. Pharmacy*, vol. i, p. 16.) Hence, it is necessary to exercise much caution in administering this powerful medicine.

315. *Lozenges of Santonin.*

℞. Santonini, ℥j;
Sacchari, ℥j;
Mucilaginis Tragacanthæ, q. s. ut fiat massa, in trochiscos lx dividenda.
Signa.—Give one lozenge night and morning.

Santonin is being extensively introduced as an efficient substitute for all other anthelmintics. Its entire freedom from unpleasant odor or taste renders it peculiarly available in the treatment of worms in children. Its destructive effects on parasites are more manifest upon the long round worm than upon the other varieties.

316. *Powder of Male Fern.*

℞. Pulveris Filicis Maris, ℥j.
Signa.—Dose, a teaspoonful.

The following is Madame Nouffer's plan of treating cases of tape-worm:

"Give of the powder of the Male Fern root, from one to three drachms, in a large cupful of any distilled water, early in the morning. If the stomach should reject it, the powder must be repeated again, as soon as the sickness has gone off, in the same quantity. When it has been upon the stomach about two hours, a strong cathartic bolus (consisting of five grains of gamboge, twelve grains of calomel, and twelve of scammony) must be taken, and worked off with a draught of green tea every now and then; and its operation may be still farther promoted, if necessary, by half an ounce of salts, dissolved in warm water. Till the worm comes away, which generally happens on the same day, the patient is to take nothing but broth. If, however, the worm should not be discharged, either wholly or in part, the powder is to be repeated with the same regimen the next day."

It has been suggested, and with some probability, that the purge directed to follow this medicine is the more efficient of the two.

317. *Powder of Kameela.*

℞. Rottleræ, ℥ij.
Divide in pulveres iv.
Signa.—Take one powder every hour, in syrup or aromatic water.

Kameela is a powder brushed off the capsules of an East Indian shrub, the *Rottlera tinctoria*. It is used in India as a dye for silks, imparting to them a fine yellow color. Dr. McKinross, in 1853, made known its powers in the treatment of tape-worm. Many British practitioners have since tried it, and confirm his favorable testimony. It may be given in powder, in doses of thirty to sixty grains; or one or two teaspoonfuls of a tincture made by displacing four ounces of the powder in a pint of alcohol. In full doses, it causes purging, with some nausea or even vomiting.

318. *Lozenges of Precipitated Carbonate of Iron.*

℞. Vanillæ, ʒj;
Sacchari, ʒxv.
Tere simul et adde—
Ferri Subcarbonatis, ʒv;
Mucilaginis Tragacanthæ, q. s.
Contunde in massam, et divide in trochiscos singulos, gr. xx, pendentes.
Signa.—One lozenge may be taken several times daily.

This formula, devised by Mr. E. Parrish, furnishes to the practitioner a mode of administering the subcarbonate of iron to children in an agreeable and effectual form.

Of this remedy, as an anthelmintic, the late Professor Rush had a very favorable opinion. He gave it in doses of from five to thirty grains to children of from one year old to ten, and sometimes in half ounce doses, with safety and success.—See *Observ. and Inquiries*, p. 243.

319. *Pills of Venice Turpentine, Calomel, &c.*

℞. Terebinthinæ Venetæ, ʒj;
Extracti Jalapæ, ʒss;
Extracti Hyoscyami, gr. iv;
Hydrargyri Chloridi Mitis, gr. viij.
Fiat massa, et divide in pilulas singulas, gr. ij, pendentes.

Signa.—Of these, four are to be taken every three hours; and during the entire period of their use, the patient is to take only weak broth, tea, or coffee.

Used in tape-worm. HUFELAND.

INFUSIONS, DECOCTIONS, ETC.

320. *Compound Infusion of Pinkroot, or Worm-tea.*

℞. Spigeliæ contusæ, ʒss;
Sennæ, ʒij;
Mannæ, ʒj;
Sabinæ, ℈ij;
Fœniculi, ʒij;
Aquæ bullientis, Oj.
Macera per horas duas et cola.
Signa.—Dose, a tablespoonful three times daily, for three days, for a child four or five years old. If it purge too actively, it should be discontinued.

Worm-tea has stood the test of many years' experience in Philadelphia, and has proved itself one of the most efficient agents for the expulsion of the long round worm.

321. *Decoction of the Bark of Pomegranate Root.*

℞. Granati Radicis Corticis, ℥jss;
Aquæ, Ojss.
Coque ad Oj, et cola.
Signa.—Take a wineglassful every two hours.

This decoction is employed, almost exclusively, for the destruction of tape-worm.

"The efficacy of the bark of the root of the pomegranate, as a remedy for the tape-worm, is now well established in India." PARIS, vol. ii, p. 173.

322. *Infusion of Kousso.*

℞. Brayeræ, ℥ss;
Aquæ bullientis, f℥x.
Macera per horam dimidiam.
Signa.—Dose, a teacupful every half-hour.
To be used for tape-worm.

The only preparation necessary is, that the last meal of the preceding evening should be slight. The previous evacuation of the bowels, by a mild purgative or a lavement, is also desirable. The mode of administering the remedy is as follows: "A little lemon-juice is to be swallowed, and the infusion being stirred up, the whole is taken, liquid and powder, at two or three draughts, at short intervals, being washed down by cold water and lemon-juice. To promote the operation, tea (without sugar or milk) may be taken. In three or four hours, if the remedy has not operated, a dose of castor oil or a saline purgative should be administered."

JON. PEREIRA.

ELECTUARIES, MIXTURES, ETC.

323. *Electuary of Tin.*

℞. Pulveris Stanni, ℥j;
Syrupi fusci, f℥iv.
Misce.
Signa.—Two tablespoonfuls may be given early in the morning, to be repeated every two hours until the whole be taken, and then followed by an active cathartic.

The efficacy of this substance is said to be increased by combination with sulphur, by which means sulphuretted hydrogen is generated, and the worm destroyed by the offensive gas. Larger doses are sometimes prescribed.

324. *Electuary of Cowhage.*

℞. Mucunæ, ℥j.
Mellis despumati, q. s. ut fiat electuarium.
Signa.—Dose, a teaspoonful to a child two or three years old; to be given before breakfast in the mornings of three successive days, and then followed by a brisk cathartic.

In lumbrici.

325. *Mixture with Oil of Wormseed.*

℞. Olei Chenopodii, f℥jss;
Olei Ricini, ℥iij;
Olei Anisi, gtt. x.
Misce, et adde—
Syrupi Rhei Aromatici, f℥j.
Fiat mistura.
Signa.—Shake the bottle well before using. Give a teaspoonful night and morning to a child two years old.

This mode of exhibiting the oil has been extensively tried in Baltimore, and has proved effectual.—*Am. Jour. Pharmacy*, p. 306, 1850.

326. *Another Form.*

℞. Olei Chenopodii, f℥j;
Sacchari,
Pulveris Acaciæ, āā ℥ij;
Aquæ Menthæ Piperitæ, f℥ijss.
Misce secundum artem.
Signa.—A teaspoonful of this preparation may be given four times a day for two days in succession, and then be purged off with castor oil or salts, for children of three to eight years old.

This is a vermifuge of considerable reputation in this country. It is generally used in *lumbrici* and *ascarides;* though we have heard of its having been successfully given for *tænia*, but in much larger doses. S. G. Morton.

327. *Fluid Extract of Pinkroot and Senna with Santonin.*

℞. Extracti Spigeliæ et Sennæ Fluidi, f℥ij;
Santonini, gr. xvj.
Misce.
Signa.—Give a child, two years old, a teaspoonful night and morning, until purging takes place.

This fluid extract, originally devised by Prof. Procter, has been used successfully in Philadelphia for the last ten years in the treatment of lumbrici.

328. *Mixture of the Extract of Male Fern.*

℞. Olei Filicis Maris, ℥ss;
Mellis Rosæ, ℥ss.
Misce.
Signa.—Take one-half at bedtime, and the remainder early in the morning, on an empty stomach.

Used for tape-worm. If the worm does not come away in six or eight hours after the last dose, administer some mild purgative. The oil indicated in this prescription is in reality a fluid extract prepared with ether. RADIUS.

329. *Linctus of Oil of Turpentine.*

℞. Olei Terebinthinæ, ℥ij;
Mellis despumati, ℥j.
Misce, et fiat linctus.
Signa.—Dose, a dessert-spoonful.

The late Prof. Chapman had great confidence in the oil of turpentine as a remedy for tape-worm, and was in the habit of giving it in large doses at brief intervals. B. ELLIS.

330. *Emulsion of Pumpkin Seeds.*

℞. Peponis, ℥ij.
Decortica et contunde in massam cum
Sacchari, ℥j.
Dein adde gradatim—
Aquæ, f℥viij.
Misce.
Signa.—The whole to be taken in two or three draughts, at short intervals, fasting.

The efficacy of an emulsion of pumpkin seeds in expelling tape-worm is now established beyond doubt, as it has been administered repeatedly and successfully, both in the West Indies and this country. The above is the formula of the late

Dr. H. S. Patterson, who was among the first to introduce the remedy to the notice of American practitioners.

The expressed oil of the seeds has also been tried in the dose of half an ounce, with a degree of success.

CLYSTERS.

Enemata are the most certain of all remedies in *ascarides;* they may be made of various substances, such as solution of assafetida, of common salt, sulphur, pure olive oil, soap, aloes, &c. &c. For children, thirty grains of aloes should be dissolved in half a gill of water; to this add a tablespoonful of sweet oil, and administer the half of the mixture on going to bed. The other half the next night, if necessary. Or aloes may be given in mucilage, as in the following formula:

331. *Aloetic Enema.*

℞. Aloës Capensis, ʒj;
Mucilaginis Ulmi, Oj.
Fiat enema.
Signa.—The half of this may be given to a child eight or ten years old.

In ascarides.

332. *Enema of Camphor and Sweet Oil.*

℞. Camphoræ, ʒj;
Olei Olivæ, ℥ij.
Misce pro enemate.

This preparation is particularly adapted to *ascarides*, and should be freely thrown up the rectum for three or four successive nights. No remedy is more effectual than this in relieving the intolerable itching caused by those worms.

333. *Anthelmintic Clyster.*

℞. Hydrargyri Iodidi Rubri, gr. ¾;
Potassii Iodidi, gr. viij.
Tere simul, et adde gradatim—
Aquæ destillatæ, Oj.
Signa.—Inject a wineglassful night and morning.

The injections should be continued for two or three days, and be repeated once or twice at the end of two weeks.

When thus employed, the remedy seldom fails in the removal of seat-worms (ascarides). The dose prescribed is for a child.
TROUSSEAU.

334. *Arsenical Clyster.*

℞. Liquoris Potassæ Arsenitis, ♏xxxij;
Aquæ destillatæ, f℥viij.
Misce.
Signa.—Inject a wineglassful every morning for three days.

Recommended for ascarides in children.

Since the days of Cœlius Aurelianus arsenical injections have not been used for the destruction of seat-worms, until their employment was recommenced in the Parisian hospitals a few years ago. Arsenic is one of the most reliable agents for the treatment of these parasites. Great care is obviously required in its employment. TROUSSEAU.

CLASS IX.

STIMULANTS.

In the use of stimulants, it is for the most part advisable to begin with small doses, and augment them as circumstances may require. There are cases, however, in which it is necessary to give them plentifully from the first.

It will be often requisite to change not only the stimulating substance, but the part of the body to which it is applied; thus, when the stomach fails, the rectum and skin may be acted upon with advantage.

PILLS, POWDERS, ETC.

335. *Pills of Camphor, Cantharides, and Opium.*

℞. Pulveris Cantharidis, gr. xviij;
Pulveris Opii,
Camphoræ, in pulverem cum alcohole redactæ, āā gr. xxxvj;
Confectionis Rosæ, q. s. ut fiant pilulæ xxxvj.
Signa.—One may be taken every night on going to bed.

In impotency from general debility.

336. *Pills of Turpentine and Guaiacum.*

℞. Pulveris Guaiaci Resinæ, ℥j;
Terebinthinæ Venetæ, q. s. ut fiant pilulæ xv.
Signa.—One three times a day.

These pills have a powerful effect upon the urinary organs. They are employed in gleet and leucorrhœa, but frequently produce strangury.

337. *Pills of Cayenne Pepper.*

℞. Pulveris Capsici, gr. xxiv;
Extracti Gentianæ, gr. xvj.
Misce et fiant pilulæ xij.
Signa.—One, four times a day.

Used in debility of the stomach, from intemperance.
St. Bart. Hospital.

338. *Creasote Pills.*

℞. Creasoti, ♏iij;
Pulveris Hyoscyami Folii, gr. xij;
Confectionis Aromaticæ, q. s.
Fiat massa in pilulas xij, dividenda.
Signa.—Take one pill three times daily.

Used to allay the morning sickness in pregnancy.
Pitschaft.

339. *Pills of Valerianate of Quinia.*

℞. Quiniæ Valerianatis, gr. xij;
Pulveris Tragacanthæ, gr. vj;
Aquæ, q. s. ut fiat massa in pilulas viij, dividenda.
Signa.—Give one pill every hour.

Used in hemicrania.

The late Dr. Joseph Parrish was in the habit of treating hemicrania successfully, by a combination of Peruvian bark and valerian. This formula contains the active constituents of both remedies in a concentrated form. It has afforded prompt relief in numerous instances.

MIXTURES AND INFUSIONS.

340. *Mixture of Carbonate of Ammonia.*

℞. Ammoniæ Carbonatis, ℥j;
Sacchari,
Pulveris Acaciæ, āā ℥jss;
Aquæ Menthæ Viridis, f℥iv.
Fiat mistura.
Signa.—A tablespoonful every two hours.

As carbonate of ammonia sustains the action of the heart, without stimulating the brain, it is resorted to whenever the vital powers begin to fail, in diseases of nearly every type.

341. *Draught with Valerian and Carbonate of Ammonia.*

℞. Olei Valerianæ, gtt. iij;
Ammoniæ Carbonatis, gr. x;
Aquæ Cinnamomi, f℥jss;
Syrupi, f℥ss.
Fiat haustus.
Signa.—One half to be taken every fourth hour.

In nervous headache, and depression of spirits.

342. *Draught of Carbonate of Ammonia and Ginger.*

℞. Pulveris Zingiberis, gr. xv;
Ammoniæ Carbonatis, gr. viij;
Tincturæ Cinnamomi, f℥ij;
Aquæ, f℥jss.
Misce.
Signa.—To be taken at once.

In gout or cramp of the stomach.

343. *Mixture of Valerianate of Ammonia.*

℞. Acidi Valerianici, f℥j;
Aquæ, f℥iv;
Ammoniæ Carbonatis, q. s. ad saturandum.
Dein adjice—
Extracti Valerianæ Fluidi, f℥j.
Misce.
Signa.—A teaspoonful every three hours.

Under the name of "Pierlot's Solution," the valerianate of ammonia has been prescribed in various diseases of the nervous system, such as morbid irritability, restlessness, hysteria, and neuralgia. TUFNELL.

344. *Elixir of Valerianate of Ammonia.*

℞. Ammoniæ Valerianatis, ℥j;
Aquæ Aurantii Florum, f℥ij;
Syrupi,
Spiritûs Curaçoa, āā f℥j.
Misce.
Signa.—Dose, a teaspoonful.

Used in hysterical affections and disorders of the nervous system.

345. *Mixture of Valerian and Cajeput Oil.*

℞. Extracti Valerianæ Fluidi, f℥ij;
Olei Cajuputi, ♏xvj.
Tere simul et adjice—
Syrupi Acaciæ, f℥vj;
Aquæ Aurantii Florum, f℥j.
Misce.
Signa.—Dose, a teaspoonful.

This is a mild and effectual stimulant, with a specific tendency to the nervous system. It may be used beneficially to correct hiccough, twitchings of the muscles, restlessness. It is also employed in hysteria.

346. *Mixture of Oil of Turpentine.*

℞. Olei Terebinthinæ, ℥j;
Pulveris Acaciæ,
Sacchari, āā ℥ij;
Tincturæ Opii, gtt. lx;
Spiritûs Lavandulæ Compositi, f℥ij;
Aquæ Menthæ Viridis, f℥v.
Fiat mistura.
Signa.—A tablespoonful for a dose, every two hours.

This remedy has gained great reputation in some of the low forms of fever. The author once employed it in the dose prescribed above, in passive hemorrhage from the bowels, with complete success; and in hemorrhage from the bladder, resulting from low fever, it has been given with equal advantage.

B. Ellis.

347. *Camphor Mixture.*

℞. Camphoræ, in pulverem redactæ, ℥j;
Pulveris Acaciæ,
Sacchari, āā ℥jss;
Tincturæ Opii, gtt. xl;
Aquæ Menthæ Viridis, f℥iv.
Fiat mistura.
Signa.—A tablespoonful to be given every two hours.

In reducing camphor to powder (which must be done before it can be formed into a mixture), it is necessary to add to it a few drops of alcohol.

Used in typhoid and nervous fevers. B. Ellis.

348. *Camphor Julep.*

℞. Camphoræ, in pulverem redactæ, ℥ss;
Aquæ bullientis, f℥viij.
Macera per horam dimidiam, in vase leviter clauso, et cola.
Signa.—A tablespoonful for a dose.

Many of the older practitioners were in the habit of using a hot camphor tea, in dysmenorrhœa, under an impression that its virtues are better developed. It certainly is stronger hot than cold, but in neither case is it equal to the officinal camphor-water (aquæ camphoræ) which contains three grains to the fluidounce when properly prepared.

349. *Camphor and Myrrh Mixture.*

℞. Camphoræ, ℥j;
Myrrhæ, ℥ss.
Tere simul et adde gradatim—
Sacchari, ℥j;
Aquæ, f℥vj.
Misce.
Signa.—A tablespoonful to be given every two hours.

Chiefly used in dysmenorrhœa.

350. *Mixture of Camphor and Chloroform.*

℞. Camphoræ, ℥ij;
Chloroformi purificati, ℥j;
Vitellum unius Ovi;
Aquæ, f℥iv.
Fiat mistura.

This mixture affords us the means of administering large doses of camphor, in as concentrated a form as it would be safe to give a local irritant. It can be diluted with water without precipitation. Each teaspoonful contains four grains.

SMITH.

351. *Solution of Camphor in Ether.*

℞. Camphoræ, ℥ss;
Ætheris, f℥j.
Solve.
Signa.—Take ten drops every twenty minutes.

Used in cholera morbus and cholera.

"I have found nothing so effectual in giving relief to the nausea and vomiting of the early stages of cholera as small doses of this solution, frequently repeated."

JOHN EBERLE.

352. *Mixture of Paregoric and Ammoniated Guaiacum.*

℞. Tincturæ Opii Camphoratæ,
Tincturæ Guaiaci Ammoniatæ, āā f℥j.
Fiat mistura.
Signa.—Two teaspoonfuls in sweetened water every two hours.

In misplaced and retrocedent gout.

353. *Yeast Mixture.*

℞. Fermenti, f℥x;
Camphoræ, ℥ss;
Spiritûs Ætheris Nitrosi, f℥ss.
Fiat mistura.
Signa.—Take a tablespoonful every two hours.

This was extensively used in the late typhus epidemic in Ireland, as a stimulant and antiseptic, and with the happiest results. LAMPREY.

354. *Assafetida and Spirit of Ammonia.*

℞. Spiritûs Ammoniæ Aromatici, f℥ij;
Tincturæ Assafœtidæ, f℥vj.
Misce.
Signa.—Give a teaspoonful, in sweetened water, every four hours.

An excellent stimulus in nervous debility and hysteria.

355. *Mixture of Dippel's Animal Oil and Hoffman's Anodyne.*

℞. Olei Cornu Cervi, f℥j;
Spiritûs Ætheris Compositi, f℥iij.
Misce.
Signa.—Take thirty drops every three hours in sweetened water.

The disagreeable smell of the oil obtained from hartshorn or bones, has proved an almost insurmountable obstacle to its use by American physicians. Nevertheless, it is an excellent stimulant and antispasmodic, and as such is employed in Germany in the treatment of chorea, catalepsy, and epilepsy. RICHTER.

356. *Emulsion of Phosphorus.*

℞. Phosphori, gr. ij ;
Mucilaginis Acaciæ, ℥j.
Tere simul, et adde gradatim—
Aquæ, f℥v.
Fiat emulsio, dein adde—
Syrupi, f℥j ;
Spiritûs Ætheris Compositi, ♏xxx.
Fiat mistura.
Signa.—The usual dose is a tablespoonful every three or four hours.

Used in amaurosis, palsy, epilepsy, &c. HUFELAND.

As the violence of phosphorus as a remedy, and its very great power, are generally known to physicians, we need hardly repeat the necessity there is for the greatest caution in its administration.

The subjoined is one of the many formulas adopted in Europe.

357. *Lobstein's Phosphorated Ether.*

℞. Phosphori, gr. ij ;
Solve in Ætheris, f℥ss.
Dein adde—
Spiritûs Menthæ Piperitæ, f℥ss.
Signa.—Take six drops on sugar every three hours.

The bottle should be carefully stoppered, and covered with dark paper. Used in epilepsy, paralysis, and amaurosis.

FOY.

358. *Phosphorated Oil.*

℞. Phosphori concisi, gr. vj ;
Olei Amygdalæ Dulcis, ℥j.
Liqua cum leni calore. Post refrigerationem, cola.
Signa.—Dose, ten drops every three hours in mucilage.

Advised in chronic rheumatism and gout. It is also used externally by friction in the same complaints, and for contracted tendons. PH. BORUSSICA.

359. *Glycerole of Phosphorus.*

℞. Phosphori concisi, gr. ij ;
Glycerinæ, f℥j.
Solve cum leni calore.
Signa.—Dose, ten minims.

Used for the same purposes, and proposed as a substitute for the above phosphorated oil. J. L. CRAWCOUR.

360. *Mixture of Arnica.*

℞. Arnicæ, ℥ij;
Aquæ bullientis, Oss.
Macera per horas duas et cola. Dein adde—
Tincturæ Arnicæ, f℥ij;
Tincturæ Cardamomi, f℥vj.
Misce.
Signa.—A tablespoonful three times a day.

Recommended for the relief of tinnitus aurium. The dose to be gradually increased. It is also useful as a stimulant in atonic gout. WILDE.

361. *Mixture of Chlorinated Lime.*

℞. Calcis Chlorinatæ, ℈j;
Aquæ, f℥iij.
Solve et cola. Dein adde—
Syrupi Zingiberis, f℥j.
Fiat mistura.
Signa.—Take a tablespoonful every three hours.

Chlorinated lime is stimulant and antiseptic, and has been used beneficially in typhoid, typhus, and scarlet fevers.
REID.

362. *Infusion of Cayenne Pepper and Salt.*

℞. Pulveris Capsici, ℥ss;
Sodii Chloridi, ℥j;
Aceti bullientis,
Aquæ bullientis, āā f℥viij.
Macera per horam unam et cola.
Signa.—Dose, a tablespoonful every two hours.

This combination was employed in an epidemic of malignant scarlet fever in the West Indies with the happiest results. It was used both internally and as a gargle. STEPHENS.

363. *Mixture of Soda and Cubebs.*

℞. Pulveris Cubebæ, ℥ij;
Sodæ Carbonatis, ℥ss;
Mucilaginis Acaciæ, f℥vj;
Aquæ Menthæ Viridis, f℥vj.
Fiat mistura.
Signa.—Take a tablespoonful every hour and a half.

Useful as an antacid and carminative. FOSBROKE.

364. *Mixture of Bismuth and Cubebs.*

℞. Pulveris Cubebæ, ℥ij;
Bismuthi Subnitratis, ℥ss;
Mucilaginis Acaciæ, f℥ss;
Syrupi, f℥vj;
Aquæ, f℥vj.
Fiat mistura.
Signa.—Take a tablespoonful four times a day.

We have extracted this and the preceding prescriptions from a paper of Mr. John Fosbroke, surgeon, Chittenham. (See *Medical Recorder*, for April, 1825.)

They are recommended in various affections of the mucous membranes, viz., of the bowels, bladder, trachea, &c.

365. *Mustard Whey.*

℞. Lactis Vaccinæ, Oj;
Sinapis Albæ contusæ, ℥j.
Coque cum leni calore, ad perfectam casei separationem, cola et adde—
Vini Xerici, f℥vj.
Signa.—A draught of this whey may be taken every hour or two in low fever and in debilitated stomach.

366. *Wine Whey.*

℞. Lactis Vaccinæ bullientis, Oss;
Vini Xerici, f℥iv.
Misce, cola, et adde—
Sacchari, ℥j;
Myristicæ rasuræ, q. s. ad gratum saporem.
Misce.

There are few mild stimulants more employed, or more useful than wine whey. Dr. Chapman speaks of it as possessing a kindred action with carbonate of ammonia. The dose to be regulated by the circumstances of the case; from four ounces to a pint during the day.

367. *Wine and Egg Mixture.*

℞. Vitellum unius Ovi;
Olei Cinnamomi, gtt. x.
Contunde simul, et adde—
Vini Xerici,
Aquæ Cinnamomi, āā f℥jss;
Sacchari, ℥j;
Aquæ destillatæ, f℥j.
Fiat mistura.
Signa.—Give a wineglassful, at short intervals, in convalescence from low fevers.

368. *Egg-Nog.*

℞. Albumen et Vitellum unius Ovi;
Sacchari Albi, ℥ij.
Misce, et contunde in spumam. Dein adde—
Vini Xerici, f℥ss;
Aquæ, f℥j;
Myristicæ rasuræ, q. s. ad gratum saporem.
Misce.

This delightful mixture is both stimulant and nutritious. In the formula, both the white and the yelk of the egg are directed to be beaten with the sugar; but if it be desirable to have the preparation very light and delicate, it is better to beat the yelk to a froth and mix with the wine, sugar, and nutmeg, and then add to the mixture the white of the egg, previously beaten to a froth in a separate vessel.

369. *Milk Punch.*

℞. Spiritûs Vini Gallici, f℥ij;
Lactis Vaccinæ, f℥iv;
Sacchari, ℥ss;
Myristicæ rasuræ, q. s. ad gratum saporem.
Signa.—Take a tablespoonful every hour or two in low fevers.

370. *Oleo-Saccharoles.*

Under the name of oleo-saccharum, M. Beral has introduced into European pharmacy a convenient mode of exhibiting the volatile oils. It is simply a combination of any volatile oil with sugar, the latter serving the double purpose of rendering the former soluble in water, and covering its taste. The proportions are,—one drop of oil to one drachm of sugar. They are to be carefully mixed by trituration. They act as mild carminatives.

CLASS X.

NARCOTICS.

Narcotics have been denominated *sedatives*, from their power of diminishing action; *anodynes*, from their capability of alleviating pain; and *hypnotics*, or *soporifics*, from their power of inducing sleep. A few words only will be necessary as general rules for their administration, and any peculiarities that individuals of the class may possess will be noticed under the appropriate prescriptions. It is well known they possess the power of fulfilling two indications; namely, of exciting and depressing the nervous energy.

To obtain the first of these results, it is necessary to begin with small doses, and repeat them frequently; while in order to arrive at the second, a full dose must be given, and not resorted to again for a considerable length of time. We should also bear in mind that the system very soon becomes habituated to their action, and the doses must be continually enlarged when it is necessary to maintain their impression. The difference between the susceptibility to their action when the body is in a morbid or healthy condition, should not be overlooked.

PILLS.

371. *Pills of Opium.*

℞. Pulveris Opii, gr. xij;
Saponis, gr. iij.
Misce, et divide in pilulas xij.
Signa.—One is the ordinary dose to produce sleep.

In equal weights of powdered and soft opium, the former is much the more powerful, the latter containing a considerable proportion of water. This should be recollected in directing the medicine in the form of pills.

An opium pill that has been made long enough to become perfectly hard and dry, will be retained by an irritable stomach when a fresh one would be rejected.

372. *Pills of Lupulin.*

℞. Lupulinæ, ℥ss;
Contunde in mortario, et divide in pilulas x.
Signa.—Two pills may be given for a dose, and the quantity be doubled if necessary.

This substance, we are told by Dr. Ives, contains all the active properties of the hop. It is slightly narcotic, and is serviceable in irritable stomach, and as a preventive of nocturnal erections in different forms of acute venereal disease.

373. *Pills of Sulphate of Morphia.*

℞. Morphiæ Sulphatis, gr. ij;
Confectionis Rosæ, q. s. ut fiant pilulæ xij.
Signa.—One may be given for a dose.

One grain of either of the salts of morphia is usually estimated as equal to six of opium; so that a pill of the above prescription will be equivalent to a grain of opium.

The acetate and muriate of morphia are prepared in the same way, and given in the same dose.

374. *Pills of Stramonium.*

℞. Extracti Stramonii, gr. vj;
Pulveris Extracti Glycyrrhizæ, q. s.
Tere simul, et divide in pilulas xij.
Signa.—Take one pill every two hours.

Stramonium often manifests a marked controlling influence over neuralgic diseases and spinal irritation. To secure its full effects the system should be decidedly brought under its action, as manifested by dilated pupils or vertigo.

375. *Pills of Lactucarium and Hemlock.*

℞. Lactucarii, gr. xij;
Extracti Conii Alcoholici, gr. vj.
Misce, et divide in pilulas vj.
Signa.—One for a dose, to be repeated in two hours, if sleep be not procured.

The inspissated juice of the garden lettuce is said to act as a direct sedative, lessening the frequency of the pulse, diminishing the natural heat, and procuring sleep, without inducing

the subsequent distressing effects which follow the use of opium.

The *thridace* of the French appears to be prepared by a different process from that employed in the preparation of the British lactucarium. The former is not so highly esteemed in this country as the latter.

376. *Pills of Henbane and Ipecacuanha.*

℞. Extracti Hyoscyami Alcoholici, gr. x;
Pulveris Ipecacuanhæ, gr. v.
Misce, et divide in pilulas x.
Signa.—One every two hours until relief is procured, watching the effect.

Used in flatulence and irritability of the bowels.

377. *Pills of Opium and Henbane.*

℞. Pulveris Opii, gr. v;
Extracti Hyoscyami, gr. xv.
Fiat massa, in pilulas x dividenda.
Signa.—One every night when an anodyne is required.

Henbane is a favorite anodyne remedy with English practitioners. When given in combination with opium, it modifies the unpleasant effects experienced by some persons from the use of the latter alone.

378. *Pills of Hemlock.*

℞. Extracti Conii, ℥j;
Pulveris Conii q. s. ut fiat massa in pilulas singulas gr. ij pendentes, dividenda.
Signa.—One pill every three hours.

Used in scrofulous and cancerous affections.

The efficacy of narcotic plants is influenced by soil, climate, exposure, and cultivation; and the extracts by the season when the plants are gathered, and the mode of preparing them. Hemlock is more variable in strength than any of the narcotics, and hence the physician is often disappointed in its effects. Nevertheless, when of good quality, it is an excellent sedative narcotic. STÖERCK.

379. *Pills of Camphor and Opium.*

℞. Camphoræ, in pulverem redactæ, ℈ij;
Extracti Opii, gr. viij.
Mucilaginis Tragacanthæ q. s. ut fiat massa in pilulas xvj dividenda.
Signa.—Take two pills every night at bedtime.

Used for spasm of the urethra, and to prevent nocturnal erections. RICORD.

380. *Pills of Opium and Digitalis.*

℞. Pulveris Opii,
Pulveris Digitalis, āā gr. vj.
Confectionis Rosæ q. s. ut fiant pilulæ xij.
Signa.—One to be taken every four hours.

In asthma.

381. *Pills of Extract of Conium and Calomel.*

℞. Extracti Conii, ℥ss;
Hydrargyri Chloridi Mitis, gr. v.
Fiant pilulæ xv.
Signa.—One three times a day.

Used in painful syphilitic affections.

382. *Pills of the Extract of Nux Vomica.*

℞. Extracti Nucis Vomicæ Alcoholici,
Pulveris Extracti Glycyrrhizæ, āā ℈j.
Misce, et fiant pilulæ xl.
Signa.—Take one pill three times daily.

Recommended in general and local palsies, in paralysis of the sphincters, and for incontinence of urine. RADIUS.

383. *Pills of Strychnia.*

℞. Strychniæ, gr. ij;
Confectionis Rosæ q. s. ut fiant pilulæ xxiv.
Signa.—Of which one pill may be given once or twice a day, according to the idiosyncrasy of the patient.

Used in paralysis.

Strychnia forms with acids a variety of salts, which are generally soluble. The commencing dose of the salt should not be greater than that of the alkaloid. It should be borne in mind that the activity of this substance is increased by all acid drinks. MAGENDIE.

384. *Pills of Camphor, Assafetida, &c.*

℞. Camphoræ,
Assafœtidæ, āā ℥j;
Extracti Belladonnæ, ℥ss;
Extracti Opii, gr. x.
Contere in massam, et divide in pilulas lx.
Signa.—One pill is given night and morning, or at shorter intervals, according to the urgency of the case.

Used in hysteria. DEBREYNE.

385. *Pills of Aconite and Dover's Powder.*

℞. Extracti Aconiti Alcoholici, gr. vj;
Pulveris Ipecacuanhæ Compositi, gr. xij;
Syrupi, q. s. ut fiat massa, in pilulas vj dividenda.
Signa.—Take one pill three times a day.

Used in chronic rheumatism.

MIXTURES, ETC.

386. *Opiate Mixture.*

℞. Extracti Opii, gr. v:
Sacchari, ʒij;
Aquæ Cinnamomi, fʒvj.
Fiat mistura.
Signa.—A tablespoonful may be taken every two hours, so that the whole be consumed in twenty-four.

In tetanus and colica pictonum. ELLIS.

387. *Laudanum.*

℞. Tincturæ Opii, fʒj.
Signa.—Dose, twenty-five drops.

As the regulation of doses for children is, to the young practitioner, one of the most difficult parts of prescribing, and as laudanum is an article so universally employed in their diseases, we subjoin the following graduated table from Dr. Dorsey's *Syllabus*, page 36, 1817:

For a child at birth or within a month after,	½ to 1 drop.
Under a year old, ...	½ to 3 drops.
From one to two years of age, . . .	1 to 5 "
From two to five " . . .	2 to 8 "
From five to ten " . . .	5 to 15 "
From ten to fifteen " . . .	10 to 20 "
At fifteen years, ...	15 to 20 "
For an adult, ...	25 to 30 "

It is important in the employment of laudanum that it should be of the proper strength and perfectly transparent. For these reasons, it should be obtained from the apothecary in small quantities, as it is liable to deposit part of the opium:

hence the liquid near the surface is weaker, and the dregs correspondingly stronger. Infants have been destroyed by the exhibition of *thick laudanum*. Physicians, therefore, should always examine the vial before trusting the nurse to give a dose to a child. B. E.

388. *Officinal Preparations of Opium.*

As each of the numerous preparations of opium presents some peculiarities, which, at times, renders it preferable to all others for internal exhibition, the following statement of the opium-strength of each may prove valuable as a guide in prescribing:

13 minims or 25 drops of laudanum (*Tinctura Opii*);
13 " or 25 " of the elixir of opium (*Tinctura Opii Deodorata*);
7 " or 10 " of black drop (*Acetum Opii*);
10 " or 20 " of the acetated tincture (*Tinctura Opii Acetata*);
80 " or 80 " of ammoniated tincture (*Tinct. Opii Ammoniata*, Ed.);
8 " or 15 " of wine of opium or Sydenham's laudanum (*Vinum Opii*);
A tablespoonful of paregoric (*Tinct. Opii Camphorata*);
Thirty-six grains of the confection (*Confectio Opii*);
Half a grain of the extract (*Extractum Opii*); and
Ten grains of Dover's powder (*Pulvis Ipecacuanhæ Compositus*),
contain, respectively, one grain of opium.

About five grains of opium, or a small teaspoonful of laudanum, may be considered as equivalent to one grain of morphia, or of any of its salts. R. P. T.

389. *Solution of Sulphate of Morphia.*

℞. Morphiæ Sulphatis, gr. j;
Aquæ destillatæ, f℥j.
Fiat solutio.
Signa.—Dose, one teaspoonful.

Used in the same cases as opium.

When morphia and its salts were first introduced, the formulas given by Magendie were generally adopted, and are still retained in New York, and some other places. These contain sixteen grains of the sulphate or the acetate of morphia in a fluidounce of water; whereas the officinal solution has but one

grain to the ounce. Practitioners should avoid confounding the two solutions.

390. *Syrup of Sulphate of Morphia.*

℞. Morphiæ Sulphatis, gr. viij;
Aquæ destillatæ, f℥iv.
Solve, et adde—
Syrupi, f℥iv;
Spiritûs Ætheris Compositi, f℥j.
Misce.
Signa.—Dose, a teaspoonful.

This is, virtually, of the same strength as the officinal solution, and has the advantage of being more durable as well as more palatable. J. T. PLUMMER.

391. *Syrup of Codeia.*

℞. Codeiæ, gr. xij;
Syrupi Acidi Citrici, f℥iv.
Misce.
Signa.—Dose, a teaspoonful three times daily.

Prescribed as an antispasmodic in hooping-cough, and as an anodyne in gastric and abdominal pains.

This principle is allied in its effects to morphia. A single grain of it proves highly anodyne, but it distresses the stomach in larger doses. Such is the testimony of Magendie. Trousseau observes that it does not possess a single special property which is not found in opium.

392. *Mixture of Laudanum and Oil of Turpentine.*

℞. Tincturæ Opii, f℥j;
Olei Terebinthinæ, f℥ss.
Misce.
Signa.—A teaspoonful, diluted, every hour or two may be given in delirium tremens, its effect being closely watched.

The turpentine may be added or omitted at the discretion of the physician, and the quantity of laudanum in some cases may be doubled. We have successfully given two teaspoonfuls every hour until two ounces of laudanum were taken. We do not believe in the doctrine, however, that opium in this disease may be administered almost *ad libitum* without danger. On the contrary, we feel assured that death has been caused by its excessive use in delirium tremens. S. G. MORTON.

393. *Mixture of Lupulin.*

℞. Tincturæ Lupulinæ, f℥j;
Syrupi Amygdalæ, f℥j;
Aquæ, f℥ij.
Misce.
Signa.—Dose, a tablespoonful every two hours.

Dr. G. B. Wood recommends the tincture of lupulin in the treatment of delirium tremens, both as an adjuvant to opium, and as a substitute for it. By checking vomiting, and quieting restlessness, it promotes sleep.

394. *Mixture of Camphor Water and Hoffman's Anodyne.*

℞. Aquæ Camphoræ, f℥iij;
Spiritûs Ætheris Compositi,
Syrupi Amygdalæ, āā f℥ss.
Misce.
Signa.—Dose, a dessert-spoonful every two hours.

Used in nervous affections, and the sleeplessness of fever.

395. *Propylamin Mixture.*

℞. Propylamini, gtt. xxiv;
Aquæ, f℥vj.
Misce.
Signa.—Give a tablespoonful every two hours.

This has been used successfully in cases of acute and chronic rheumatism in the Hospital of St. Petersburg.

AWENARIN.

396. *Mixture of Chloride of Propylamin.*

℞. Propylamini Chloridi, gr. xxxvj;
Sacchari, ℥ij;
Aquæ Menthæ Piperitæ, f℥vj.
Fiat solutio.
Signa.—A tablespoonful every two hours.

This preparation has been employed for rheumatism in the Pennsylvania Hospital, as an efficient substitute for pure propylamin, which is liable to undergo change, unless carefully preserved.

J. J. LEVICK.

397. *Elixir of Propylamin.*

℞. Propylamini Chloridi, ℈ij;
Aquæ, f℥iijss.
Solve et adde—
Syrupi, f℥ss;
Spiritûs Curaçoæ, f℥j.
Misce.
Signa.—Dose, a teaspoonful.

In this preparation the unpleasant odor and taste are overcome by the use of syrup and Curaçoa cordial. Each fluidrachm contains one grain of the chloride of propylamin.

R. H. Stabler.

398. *Mixture of Iodide of Propylamin.*

℞. Propylamini Iodidi, gtt. xxv;
Sacchari, ℥ij;
Aquæ Menthæ Piperitæ, f℥vj.
Misce.
Signa.—A tablespoonful every two hours.

Used, like the other preparations of propylamin, in the treatment of rheumatism. The presence of iodine is claimed as an important element in this combination. B. J. Crew.

399. *Tincture of Strychnia.*

℞. Alcoholis, f℥j;
Strychniæ, gr. iij.
Fiat tinctura.
Signa.—This tincture is to be given by drops, from six to twenty, in draughts of mucilage.

Used in general and local paralysis. Magendie.

400. *Strychnia Mixture.*

℞. Strychniæ, gr. j;
Acidi Acetici, gtt. ij;
Sacchari, ℥ij;
Aquæ destillatæ, f℥ij.
Fiat solutio.
Signa.—A teaspoonful morning and evening.

Prescribed in palsies. It has also proved beneficial in the vomiting of pregnant women, when given in smaller quantities and at shorter intervals. Magendie.

401. *Solution of Extract of Belladonna.*

℞. Extracti Belladonnæ, gr. iij;
Syrupi, f℥j;
Aquæ Cinnamomi, f℥vij.
Fiat solutio.
Signa.—Give three drops thrice a day, to a child under a year old, and an additional drop for every additional year.

Belladonna has been recently used in Germany as a preventive of scarlatina. The extract, if given for several days, produces a scarlet eruption and affection of the fauces, analogous to those of scarlatina; and it is pretended that this factitious disease is sufficient to prevent the access of the real one. S. G. Morton.

402. *Mixture of Chloric Ether.*

℞. Ætheris Chlorici, f℥jss;
Aquæ Camphoræ, f℥ij;
Syrupi Amygdalæ, f℥ss.
Misce.
Signa.—A dessert-spoonful in water every three hours.

As prepared by the manufacturing chemists of Philadelphia, chloric ether is of a uniform strength, and a reliable article. It is less narcotic than chloroform, but more stimulating. It has proved of great service in the treatment of many nervous and painful affections unattended by active inflammation.
C. Evans.

403. *Chloroform Mixture.*

℞. Chloroformi purificati, ℥ij;
Olei Cinnamomi, gtt. viij;
Spiritûs Camphoræ,
Tincturæ Opii, āā f℥jss;
Alcoholis, f℥iij.
Misce.
Signa.—The dose ranges from five to thirty drops, in sweetened water.

This preparation has proved highly serviceable in the relief of the pain and cramps of colic, cholera morbus, and cholera asphyxia. H. Hartshorne.

404. *Chloroform Mixture.*

R. Chloroformi, ℥j ;
Vitellum unius Ovi.
Tere simul et adde—
Sacchari, ℥ij ;
Aquæ, f℥ij.
Fiat mistura.
Signa.—Dose, a dessert-spoonful every two hours.

Prescribed in gastrodynia, flatulent colic, and cholera morbus. Owing to the antiseptic properties of the chloroform, this mixture keeps well.

It is used in the same cases as the preceding.

405. *Mixture of Magnesia, Assafetida, and Laudanum.*

℞. Magnesiæ Carbonatis, ℥ss ;
Tincturæ Assafœtidæ, gtt. lx ;
Tincturæ Opii, gtt. xx ;
Sacchari, ℥j ;
Aquæ destillatæ, f℥j.
Fiat mistura.
Signa.—Twenty-five drops may be given to an infant of two to four weeks old.

In flatulent colic, diarrhœa, &c.

This preparation was strongly recommended by the late Dr. Dewees, and it is now much employed in this city, under the name of *Dewees's Carminative.*

If the *calcined* magnesia be used, it unites with the resin of the assafetida, forms an almost solid mass at the bottom of the vessel, and defeats the object of the prescription, consequently the carbonate should be preferred.

406. *Carminative for Infants.*

℞. Magnesiæ Carbonatis, ℈j ;
Vini Opii, gtt. xv ;
Syrupi Acaciæ, f℥iij ;
Aquæ Cinnamomi, f℥v.
Misce.
Signa.—Shake well before using. Dose, ten drops for a child three days old.

Used to relieve colicky pains, and to correct the green alvine discharges of infants.

407. *Another Form (without opium).*

℞. Cretæ Preparatæ,
Sacchari, āā ℥j;
Acaciæ Pulveris, ℥ij;
Aquæ Cinnamomi, f℥iv.
Misce.
Signa.—Give a teaspoonful two or three times daily.

Used in acidity, flatulent colic, and diarrhœa of young children. DAVIS.

408. *Tincture of Hemp.*

℞. Extracti Cannabis purificati, gr. xxiv;
Alcoholis, f℥j.
Fiat solutio.
Signa.—Take ten drops every two hours.

The above is the formula of Dr. O'Shaughnessy, of Calcutta, who has had much experience with the gunjah or Indian hemp. In cholera, he gave ten drops every half hour to check the vomiting; in tetanus, a drachm of the tincture, with the same interval, until the paroxysms ceased, or catalepsy was induced; and in acute rheumatism, twenty drops until symptoms of intoxication were manifested.

Dr. B. H. Coates has tried it in a case of tedious labor, in which it seemed to have the effect of restoring the uterine contractions by acting "as musk, castor, or assafetida frequently do in other hollow viscera, by restraining excessive and irregular contractions, and enabling the contracting organ to combine its efforts more in conformity to a healthy order, and a useful tendency and result."

The great uncertainty in the strength of the extract heretofore imported, has interfered with its introduction into practice; but there is now to be had, in Philadelphia, an extract which is decidedly narcotic in the dose of a quarter to half a grain. It may be given as a pill, or be rubbed into powder, as in the following form:

409. *Powder of Hemp.*

℞. Extracti Cannabis purificati, gr. v;
Sacchari Lactis, ℥j.
Tere simul et divide in pulveres xv.
Signa.—One powder to be given every four hours.

Although this formula is particularly recommended for use in gonorrhœa, yet it will be found a convenient mode of exhibit-

ing Indian hemp in a variety of complaints, as sciatica, neuralgia, tetanus, &c. M. D. Mooney.

410. *Alcoholic Solution of Oil of Bitter Almonds.*

℞. Olei Amygdalæ Amaræ, ♏xx;
Alcoholis, f℥iij.
Fiat solutio.
Signa.—Take ten drops four times daily.

Used in neuralgia, tic douloureux, and other painful complaints. Horn.

CLYSTERS AND SUPPOSITORIES.

411. *Laudanum Enema.*

℞. Tincturæ Opii, gtt. l;
Infusi Lini Compositi, f℥ij.
Fiat enema.

Used for obstinate vomiting, chronic dysentery, and painful affections of the pelvic viscera.

It is generally supposed that three times the quantity of a medicine may be thrown into the rectum that may be taken into the stomach. As regards opium, however, we believe it to be too much, particularly in children. Indeed, it is an unsettled point in therapeutics, whether remedies in relative doses, act more powerfully upon the rectum or upon the stomach.

412. *Opium Suppository.*

℞. Pulveris Opii, gr. ij;
Saponis, gr. iv.
Misce bene.
Signa.—Introduce into the rectum when a local anodyne is indicated.

413. *Another Form.*

℞. Olei Theobromæ, ℥ss;
Pulveris Opii, gr. xij.
Liquefac cum leni calore. Misce, et fiant suppositoria xij.
Signa.—One to be introduced into the bowel.

This is a good form for securing the effects of opium, when the remedy cannot be borne by the mouth.
S. W. Mitchell.

414. *Suppository of Opium and Rhatany.*

℞. Olei Theobromæ, ℥ss;
Extracti Krameriæ, ℈ij;
Pulveris Opii, gr. v.
Misce secundum artem, et fiant suppositoria x.

Used in piles, relaxation or descent of the bowel, fissure of the anus, &c. J. Pancoast.

415. *Suppository of Morphia.*

℞. Olei Theobromæ, ℥ss;
Morphiæ Sulphatis, gr. iij.
Liquefac, et fiant suppositoria xij.

The introduction of one of these into the bowel, every three or four hours, affords much relief in painful affections of the pelvic viscera, and, especially, in dysmenorrhœa, and cancer of the womb. Chordee can usually be controlled by the use of one at bedtime. They have also proved highly beneficial in arresting the pain attendant upon a threatened abortion.
R. P. Thomas.

416. *Suppository of Belladonna.*

℞. Extracti Belladonnæ Alcoholici, gr. ij;
Saponis, gr. iv.
Fiat suppositorium.

Recommended in painful affections of the womb or bladder.
S. Ashwell.

417. *Suppository of Hemlock.*

℞. Olei Theobromæ, ℥j;
Extracti Conii, gr. x.
Misce, et fiat suppositorium.

Used in cancer of the rectum, womb, or bladder.

EXTERNAL USE OF NARCOTICS.

418. *Mixture of the Extract of Belladonna.*

℞. Extracti Belladonnæ,
Glycerinæ, āā ℥j.
Tere simul.

Used for dilating the pupil in cataract, by rubbing around the eyebrow and on the temples.

419. *Solution of Atropia.*

℞. Atropiæ, gr. ij;
Acidi Acetici, gtt. vj;
Aquæ destillatæ, f℥j.
Fiat solutio.
Signa.—Let a drop or two fall into the eye to dilate the pupil.

This is equally efficacious in its action, and more elegant than the ordinary preparations of belladonna. It is also much more prompt, a healthy iris being acted upon in ten to twenty minutes. W. W. Cooper.

Three minims of this solution, containing one-eightieth of a grain of atropia, may be considered equivalent in activity to one-third of a grain of the extract, or fifteen drops of the tincture of belladonna, for internal administration. R. P. T.

420. *Mixture of Opium, Lime-water, &c.*

℞. Extracti Opii, gr. j;
Liquoris Calcis,
Olei Amygdalæ Dulcis, āā f℥iij.
Fiat mistura.

Recommended by Dr. Sibergundi of Dorsten, in the treatment of sore nipples. It is to be applied on dossils of lint.

421. *Infusion of Hemlock.*

℞. Conii, ℥ss;
Aquæ bullientis, Oj.
Fiat infusum.
Signa.—Apply both the infusion and the leaves to cancerous and scirrhous ulcers.

A cataplasm is also employed for the same purpose, made by mixing the powdered leaves with bread-and-water poultice.

422. *Infusion of Henbane.*

℞. Hyoscyami Folii, ℥ss;
Aquæ bullientis, Oj.
Fiat infusum.

Employed as an external application to cancerous, scrofulous, and other indolent ulcers.

423. *Dental Anæsthetic.*

℞. Tincturæ Aconiti Radicis,
Chloroformi purificati,
Alcoholis, āā f℥j;
Morphiæ, gr. vj.
Misce.
Signa.—Moisten two pledgets of cotton with the liquid, and apply to the gums for a minute or two, around the tooth.

Employed to diminish the pain of extraction of teeth, and to deaden sensibility in the gums. TEFFT.

424. *Decoction of Stramonium in Milk.*

℞. Stramonii Folii, ℥ij;
Lactis recentis, Ojss.
Coque ad Oj.

Employed for gouty, rheumatic, and other painful swellings, by applying both the boiled leaves and the milk to the affected part.

425. *Ointment of Belladonna.*

℞. Extracti Belladonnæ, ℥ij;
Adipis, ℥ij.
Fiat unguentum.

A portion to be applied to the neck of the uterus in rigidity of that part occasioned by disease, or previous to delivery. It is said to act on the same principle as it does in dilating the iris. The application to be made for some time by means of a speculum with a wide mouth. CHAUSSIER.

426. *Sedative Application.*

℞. Extracti Belladonnæ, ℥jss;
Tincturæ Opii, ♏xl.
Tere simul, et adde—
Chloroformi Venalis, ℥j.
Misce.
Signa.—For local application.

A portion of this mixture is to be smeared over the seat of pain in neuralgia, or other local painful affections.

DIDAY.

427. *Lotion of Atropia.*

℞. Atropiæ, gr. vj;
Acidi Acetici, gtt. x;
Glycerinæ, f℥iij.
Misce.

Forty or fifty drops are to be applied by friction over the track of the nerve, three times daily, in facial neuralgia.

428. *Anodyne Plaster.*

℞. Emplastri Plumbi, ℥ij;
Liquefac lento igne, et adde gradatim—
Pulveris Opii,
Pulveris Camphoræ, āā ℥ss.
Fiat emplastrum.

Used for enlarged joints, rheumatism, and local pains. The officinal "Emplastrum Opii" is employed for the same purposes.

429. *Plaster of Opium and Camphor.*

℞. Pulveris Opii,
Pulveris Camphoræ,
Saponis, āā ℥j;
Tincturæ Opii, q. s. ut fiat emplastrum.

This plaster, spread upon cloth or kid of the requisite size, is employed in the same cases as the preceding.

430. *Another Form.*

℞. Pulveris Opii, ℈ij;
Camphoræ, ℥ss;
Picis Burgundicæ, ℥j;
Emplastri Plumbi, q. s. ut fiat emplastrum, iv×vj.

This plaster is highly recommended in neuralgia.

GRAVES.

431. *Plaster of Opium and Belladonna.*

℞. Extracti Opii, gr. xv;
Extracti Belladonnæ, ℥j;
Glycerinæ, ♏xx vel q. s.
Misce.

Signa.—Spread on adhesive plaster 3×4 inches, leaving an adhesive margin all round.

This is an excellent application to the face for toothache, or to other parts for the relief of neuralgia.

432. *Liniment of Belladonna, Cherry Laurel Water, &c.*

℞. Extracti Belladonnæ, ℈ij;
Aquæ Amygdalæ Amaræ, f℥ij.
Tere simul, dein adde—
Ætheris, f℥j.
Misce.
Signa.—Rub the liniment on the affected part, and apply a flannel moistened with it, the whole to be covered with a piece of oiled silk.

Useful in neuralgia, in gouty and rheumatic pains, and for gathered breasts. RANQUE.

433. *Camphor and Chloroform Liniment.*

℞. Camphoræ, ℥jss;
Chloroformi Venalis, ℥ij;
Olei Olivæ, ℥ij.
Fiat linimentum.

Useful in rheumatic and neuralgic affections.
W. B. PRICE.

434. *Chloroform and Soap Liniment.*

℞. Linimenti Saponis, f℥ij;
Chloroformi Venalis, f℥j.
Misce.

Employed like the preceding in rheumatic pains. The quantity of chloroform may be advantageously increased.
TUSON.

435. *Compound Chloroform and Aconite Liniment.*

℞. Olei Ricini, ℥ij;
Chloroformi Venalis,
Spiritûs Ammoniæ,
Tincturæ Aconiti Radicis, āā f℥ij;
Linimenti Saponis, f℥j.
Misce.

Employed in rheumatic pains, bruises, &c.
W. PROCTER, JR.

CLASS XI.

ANTISPASMODICS.

ANTISPASMODICS are those medicines which allay spasm, and compose the irregular actions of the nervous system. Some of the most powerful of them are derived from the class of Narcotics.

PILLS, ETC.

436. *Pills of Assafetida and Soap.*

℞. Assafœtidæ, ℥j;
Saponis, gr. x.
Contunde in massam, et fiant pilulæ xx.
Signa.—Two of these pills may be taken for a dose.

Used in hysteria, and as a mild laxative.

437. *Pills of Oxalate of Cerium.*

℞. Cerii Oxalatis, gr. xv;
Extracti Gentianæ, gr. v.
Fiat massa in pilulas x dividenda.
Signa.—Take one pill an hour after each meal.

Used to relieve the sick stomach of pregnancy. This article was brought into notice as a remedy by Prof. J. Y. Simpson, of Edinburgh, who uses it both in the pulverulent and the pilular form. He says, "I have seen it successful in curing vomiting in a larger proportion of cases than any other single remedy."

438. *Pills of Castor and Succinic Acid.*

℞. Castorei, ℥j;
Acidi Succinici, ℥ss;
Extracti Gentianæ, q. s. ut fiant pilulæ xxiv.
Signa.—Dose, three pills night and morning.

In hysteria.

439. *Pills of Musk, Camphor, &c.*

℞. Moschi, ℈ss;
Camphoræ, ℈j;
Ammoniaci, ℈ij;
Opii, gr. iv.
Misce, et fiant pilulæ singulæ gr. iv pendentes.
Signa.—One pill to be given every three hours.

In nervous diseases. M. A. Richard.

440. *Pills of Valerianate of Zinc.*

℞. Zinci Valerianatis, gr. xij;
Confectionis Rosæ, q. s. ut fiat massa in pilulas xij dividenda.
Signa.—Give one pill every three hours.

Used in neuralgia, epilepsy, and anomalous nervous tions.

441. *Bolus of Musk and Camphor.*

℞. Camphoræ,
Moschi, āā gr. v;
Syrupi Acaciæ, q. s. ut fiat bolus.

This excellent stimulant is given in the low stages of bilious, congestive, typhoid, or typhus fevers, a bolus being administered every two or three hours. Were it not for the gross adulterations of musk, and its exorbitant price, this remedy would doubtless receive more attention.

To confine the aroma of musk, whether in the form of pills or otherwise, it should always be kept in vials.

MIXTURES, ETC.

442. *Musk Mixture.*

℞. Moschi optimi, ℥ij;
Sacchari, ℥j;
Pulveris Acaciæ, ℥j;
Aquæ destillatæ, f℥vj.
Fiat mistura, et adde—
Tincturæ Opii Camphoratæ, f℥ss;
Tincturæ Valerianæ Ammoniatæ, f℥j.
Misce.
Signa.—A teaspoonful three or four times a day.

For children in pertussis.

443. *Mixture of Sumbul and Valerian.*

℞. Tincturæ Sumbuli (Rad. Sumb. ℥ij ad Alcoholis, Oj),
Tincturæ Valerianæ, āā f℥j.
Misce.
Signa.—Dose, a teaspoonful every two hours, in sweetened water.

The sumbul, or musk-root of Asia, has attracted some attention in Europe as a mild stimulant, suited to the low forms of fever, controlling the nervous symptoms that arise during convalescence from fevers. It has been prescribed also for the relief of cramps, spasms, and hysteria. GRANVILLE.

444. *Mixture of Assafetida, Castor, and Ammonia.*

℞. Tincturæ Assafetidæ,
Tincturæ Castorei, āā f℥j ;
Spiritûs Ammoniæ Aromatici, f℥j.
Misce.
Signa.—A teaspoonful may be taken in a glass of sweetened water for a dose.

445. *Hoffman's Anodyne and Laudanum.*

℞. Spiritûs Ætheris Compositi, f℥iij ;
Tincturæ Opii, gtt. lxxx ;
Aquæ Cinnamomi, f℥vj.
Fiat mistura.
Signa.—A tablespoonful every two hours.

Given in hysteria, and to quiet restlessness and morbid vigilance.

446. *Mixture of Assafetida.*

℞. Assafœtidæ electæ, ℥ij ;
Vini Xerici, f℥v.
Tere simul, et adde gradatim—
Aquæ, f℥vij.
Misce.
Signa.—Dose, a tablespoonful for an adult, a teaspoonful for a child.

This preparation corresponds in strength with the officinal milk of assafetida, containing fifteen grains in a fluidounce. The design of its proposer is to have the wine made up of the exact strength indicated, and to have it kept in a cool place ready for use. With care it may be preserved several months.

The seven parts of water are not to be added to the one of wine of assafetida until a prescription is received.

Used like the other preparations of assafetida as a laxative and carminative, and in nervous affections of various kinds.

H. N. RITTENHOUSE.

447. *Mixture of Assafetida, Valerian, and Castor.*

℞. Assafœtidæ, ℥j ;
Aquæ Menthæ Piperitæ, f℥iij.
Fiat mistura, et adde—
Tincturæ Valerianæ Ammoniatæ, f℥ij ;
Tincturæ Castorei, f℥iij ;
Ætheris, f℥j.
Signa.—A tablespoonful for a dose, largely diluted, every second hour.

In hysteria.

448. *Oil of Valerian with Spirit of Hartshorn.*

℞. Olei Valerianæ, ♏viij ;
Spiritûs Ammoniæ Aromatici, f℥j ;
Sacchari, ℥ij ;
Aquæ, f℥iv.
Misce.
Signa.—Take a tablespoonful every three hours.

449. *Mixture of Nitric Acid.*

℞. Acidi Nitrici, ♏xxxij ;
Syrupi, f℥iijss ;
Tincturæ Cardamomi Compositæ, f℥ss.
Misce.
Signa.—Dose, half a teaspoonful every three hours.

Prescribed in pertussis, the quantity to be augmented in proportion to the age of the patient, and the severity of the paroxysms. H. HOLMES.

450. *Mixture of Ether and Laudanum.*

℞. Ætheris, f℥ij ;
Cetacei, gr. iv.
Tere simul, et adde gradatim—
Aquæ Menthæ Piperitæ, f℥ij ;
Tincturæ Opii, f℥j.
Misce.
Signa.—Dose, a teaspoonful.

Prescribed in cramp of the stomach, colic, or other severe abdominal pains. It should be administered at short intervals.

451. *Mixture of Cimicifuga.*

℞. Extracti Cimicifugæ Fluidi,
Syrupi Acaciæ, āā f℥ss;
Aquæ Amygdalæ Amaræ, f℥iij.
Misce.
Signa.—A teaspoonful every three hours.

Black snakeroot is a remedy of much value in the treatment of diseases of the nervous system, and especially in chorea and hooping-cough.

452. *Mixture of Skullcap.*

℞. Extracti Scutellariæ Fluidi (*Thayer*),
Syrupi, āā f℥ss;
Aquæ Amygdalæ Amaræ, f℥ij.
Misce.
Signa.—A dessert-spoonful every three hours.

In the early part of the present century skullcap was considered by many persons an absolute specific for the prevention of hydrophobia. Its claims to this virtue are now obsolete. It has been tried in various diseases, chiefly those of a nervous character or involving the nerve-centres, such as delirium tremens, chorea, convulsions, and irritation from teething in children, with an amount of success justifying a more extended employment.

453. *Assafetida Enema.*

℞. Tincturæ Assafœtidæ, f℥ij;
Mucilaginis Ulmi, f℥vj.
Misce pro enemate.

Administered in hysteria, spasmodic colic, &c. A third, or even one-half of this quantity may be safely and beneficially given to a young child in convulsions.

454. *Musk Enema.*

℞. Moschi, gr. xij;
Sacchari, ℈ij;
Spiritûs Ammoniæ, ♏xxx;
Infusi Lini Compositi, f℥iv.
Fiat enema.
Signa.—Given in infantile convulsions. One-half being injected at a time.

CLASS XII.

SIALAGOGUES.

Those medicines which increase the salivary secretion are denominated Sialagogues. In forming these into a *class* in this place, we trespass on the arrangement of Dr. Chapman, but merely from a motive of convenience; for we agree with him that such a class would be better expunged from the Materia Medica, at the same time that it appears necessary to introduce it here, in order to place the mercurial preparations in stronger relief than could otherwise be done.

455. *Powders of Calomel.*

℞. Hydrargyri Chloridi Mitis, gr. ij;
Sacchari lactis, ℈j.
Tere simul et divide in pulveres viij.
Signa.—Take one powder every two hours.

When the practitioner wishes to obtain the alterative effects of mercury, it is better to administer very small doses, at short intervals. A larger quantity would probably act upon the liver, and secondarily, upon the bowels.

456. *Pills of Corrosive Sublimate.*

℞. Hydrargyri Chloridi Corrosivi, gr. vijss;
Amyli, ʒj;
Syrupi Acaciæ, q. s. ut fiant pilulæ lx.
Signa.—Give one pill three times a day.

Prescribed in constitutional syphilitic affections.
Trousseau.

457. *Dupuytren's Antisyphilitic Pills.*

℞. Hydrargyri Chloridi Corrosivi, gr. ss;
Extracti Cinchonæ, gr. x;
Extracti Opii, gr. ss.
Fiant pilulæ ij.
Signa.—The two pills may be taken, one in the morning, and the other at night; but as each contains a quarter of a grain of corrosive sublimate, their action must be very closely watched.

M. Dupuytren was partial to these pills in the treatment of syphilis. He thought the opium and cinchona promoted and beneficially modified the action of the sublimate.

458. *Pills of Corrosive Sublimate and Hemlock.*

℞. Hydrargyri Chloridi Corrosivi, gr. vj;
Extracti Conii, ℥j;
Pulveris Conii, q. s. ut fiat massa, in pilulas xlviij dividenda.
Signa.—Give one pill three times a day.

Used in lues venerea.

The effect of the mercurial preparations upon children is sometimes very serious and even fatal. So powerful upon them is the action of this medicine, that a profuse or even gentle salivation will sometimes produce mortification and destruction of the jaw, cheek, and lip. This, however, does not often happen; but to avoid it, the gums should be frequently and carefully examined. It is, nevertheless, a fact, that a disease precisely similar in all its features occasionally attacks children who are badly clothed and fed, though no mercury has been given to them. B. Ellis.

459. *Pills of Iodide of Mercury.*

℞. Hydrargyri Iodidi Viridis, gr. v;
Confectionis Rosæ, q. s. ut fiant pilulæ xxx.
Signa.—Each pill will contain the sixth of a grain, which may be given three times a day. Double the quantity (two pills) is sometimes administered at first, but care should be taken not to push the remedy too far.

460. *Compound Pills of Iodide of Mercury.*

℞. Hydrargyri Iodidi Viridis,
Lactucarii, āā ʒss;
Extracti Opii, gr. ix;
Resinæ Guaiaci, ʒj.
Misce et fiant pilulæ xxxvj.
Signa.—Take one pill three times daily.

Highly recommended both in primary and secondary syphilis, the treatment being continued until mercurialization appears. RICORD.

461. *Pills of Calomel, Camphor, and Opium.*

℞. Hydrargyri Chloridi Mitis,
Camphoræ, āā ℈j;
Pulveris Opii, gr. x;
Syrupi, q. s. ut fiant pilulæ xx.
Signa.—One to be taken morning, noon, and night, when calomel by itself causes purging. B. ELLIS.

462. *Pills of Blue Mass.*

℞. Pilulæ Hydrargyri, ʒss.
Divide in pilulas x.
Signa.—One to be taken night and morning.

When used as thus prescribed, blue mass is one of our best alteratives in the treatment of syphilitic disease, and all other complaints where the mercurial impression is indicated.

If eight or ten grains be taken at bedtime, one or two evacuations of the bowels will occur during the next day.

463. *Pills of the Red Oxide of Mercury.*

℞. Hydrargyri Oxidi Rubri, gr. j;
Pulveris Opii, gr. j;
Olei Caryophylli, gtt. ij.
Fiant pilulæ iij.
Signa.—One pill every night for a week.

In venereal cases.

This preparation, in a stronger formula, was used and highly recommended by the celebrated John Hunter; but from its harshness it is now generally superseded by milder medicines.

464. *Solution of Cyanide of Mercury.*

℞. Hydrargyri Cyanidi, gr. viij;
Aquæ, Oj.
Fiat solutio.
Signa.—A teaspoonful of the solution, containing one-sixteenth of a grain of the cyanuret, may be given morning, noon, and night, watching its effects.

This is the *Liquor Anti-syphilitique* of Chaussier, who prefers it to corrosive sublimate, on account of its greater solubility and more speedy action.

465. *Powder of Mercury and Chalk with Ipecacuanha.*

℞. Hydrargyri cum Cretâ, ℈j;
Pulveris Ipecacuanhæ, ℈ss.
Fiant chartulæ vj.
Signa.—One night and morning in syrup.

Commended by Dr. Paris, in dyspepsia, in which the biliary secretion is impaired. He prefers it under these circumstances to every other form of mercury.

466. *Masticatory of Pellitory and Mastich.*

℞. Pulveris Pyrethri,
Mastiches, āā ℥j.
Signa.—Let these be mixed together by a moderate application of heat; then divide the mass into two equal parts. One of these lumps may be chewed at pleasure.

Used in toothache and paralytic affections of the tongue.
WALTHER.

CLASS XIII.

TONICS.

Tonics are those medicines which impart strength to the system, without subjecting it to any preternatural excitement during their operation. They stimulate, however, in a secondary manner, by gradually increasing the force of the circulation, and by restoring the digestive and secretory functions to a more healthy state. Considerable perseverance is often necessary in giving any one of this class a fair trial; and when one fails, we may often resort with success to another. Much also may sometimes be gained by alternating them.

It is a well-known fact that some medicines possessed of tonic properties, in small or ordinary doses, have the singular power, when administered more freely, of producing such changes in the economy as to render them applicable to the cure of intermittent disease. The numerous remedies of this class, and their varied modes of exhibition, render it advisable, in a work of this kind, to have some mode of distinguishing them from ordinary tonics. For convenience of reference, therefore, two sub-classes have been made, viz., 1. Of Anti-Intermittents, and 2. Of Ordinary Tonics.

Sub-Class I.—ANTI-INTERMITTENTS.

At the head of this class stand, confessedly, Peruvian Bark and its numerous preparations.

POWDERS AND PILLS.

467. *Powder of Peruvian Bark.*

℞. Pulveris Cinchonæ Rubræ, ℥j.
Signa.—A teaspoonful to be taken every hour in port wine, water, or milk, during the intermission of fever.

Some practitioners suspend the bark till within a few hours of the expected paroxysm; and others administer it during the hot stage of the disease. It is better to commence immediately after the paroxysm has ended, and give a dose every hour, until the expected period of its return; and to continue it in smaller quantities for several days.

If the bark should purge when given alone, a little opium may be added; when it oppresses the stomach, cloves, as in the next prescription; if costiveness should follow, rhubarb or sulphate of magnesia.

468. *Powder of Peruvian Bark, Cloves, and Cream of Tartar.*

℞. Pulveris Cinchonæ Rubræ,
Potassæ Bitartratis, āā ʒj;
Pulveris Caryophylli, ʒj.
Misce.
Signa.—Dose, a teaspoonful in syrup every second hour.

This compound will sometimes succeed in arresting miasmatic disease when the bark alone fails.

469. *Powder of Peruvian Bark, Virginia Snake-root, and Soda.*

℞. Pulveris Cinchonæ, ʒss;
Pulveris Serpentariæ, ʒj;
Sodæ Bicarbonatis, ℈ij.
Divide in chartulas iv.
Signa.—One to be given every two hours.

In obstinate intermittents.

470. *Powder of Prussian Blue and Guaiac.*

℞. Ferri Ferrocyanidi,
Pulveris Guaiaci Resinæ, āā ʒj.
Misce, et divide in chartulas xij.
Signa.—One three times a day.

In obstinate intermittents.

471. *Pills of Sulphate of Quinia.*

℞. Quiniæ Sulphatis, gr. xx;
Acidi Sulphurici Aromatici, ♏xv.
Signa.—"Drop the acid into the sulphate of quinia on a tile or slab, and triturate it with a spatula until it assumes a pilular consistence; then divide into the required number of pills." Made in this way a three-grain pill is not inconveniently large. E. Parrish.

In prescribing quinia in the apyrexia of intermittents, and especially in that of neuralgia, it is often necessary to increase the dose beyond the officinal formula, which is one grain in each pill. For example, three, four, or five grains may be requisite in those cases in which the neuralgic paroxysms are violent, and the intermission short; and this quantity must be repeated every two or three hours, or even every hour. The principal inconveniences arising from the free exhibition of quinia are a painful sense of fulness, noise, and dizziness of the head, constriction of the chest, and purging. The latter may be checked by accompanying each pill with a few drops of laudanum, or by a tablespoonful of the simple aqueous infusion of camphor. If the affection of the head or chest becomes severe, the medicine must be suspended or diminished in quantity.

472. *Pills of Quinia, Opium, and Black Pepper.*

℞. Quiniæ Sulphatis, gr. xx;
Pulveris Opii, gr. ij;
Oleoresinæ Piperis, ♏v;
Syrupi Acaciæ, q. s. ut fiat massa in pilulas xx dividenda.

Signa.—Give two pills every hour in the morning of an expected chill.

In ordinary intermittents the sulphate of quinia retains the first rank for promptness and efficiency in arresting the paroxysm; but in chronic cases it frequently fails. In the treatment of the latter, the present prescription will prove an excellent agent.

473. *Powders of Sulphate of Quinia and Tartar Emetic.*

℞. Quiniæ Sulphatis, gr. x;
Antimonii et Potassæ Tartratis, gr. iij.

Misce, et divide in partes vj æquales.

Signa.—Give one powder every two hours.

This preparation is commended as having been successful in intermittent fever, when quinia alone produced no favorable result. It causes vomiting and purging, and prevents the recurrence of the paroxysm. It should be given during the intermission. GOLA.

474. *Pills of Sulphate of Quinia and Carbonate of Ammonia.*

℞. Quiniæ Sulphatis, gr. xij;
Ammoniæ Carbonatis, gr. xxiv;
Syrupi Acaciæ q. s.

Fiant pilulæ xij.

Signa.—One every hour, beginning six hours before the expected paroxysm.

These pills are large, but they will act when quinia alone proves unavailing.

475. *Pills of Chinoidine.*

℞. Chinoidini. ℈ij;
Extracti Gentianæ. gr. x.
Tere simul, et fiant pilulæ xii.
Signa.—Take two pills every three hours.

Dr. Gemmill has tried chinoidine for two or three years, and has found it an effectual substitute for quinia. He gives two grains every three hours during the intermission, until twelve to sixteen pills are taken, and on the sixth, thirteenth, and twentieth days, eight or ten pills in the same way.

J. M. Gemmill.

476. *Pills of Sulphate of Cinchonia.*

℞. Cinchoniæ Sulphatis. ℈ss;
Pulveris Acaciæ. gr. x;
Acidi Sulphurici Aromatici. ♏x.
Fiat massa, et divide in pilulas xx.
Signa.—Take two pills every hour in the apyrexia of intermittent fever, until eight are taken.

Experiments made in several public institutions of Philadelphia prove the sulphate of cinchonia to be an efficient substitute for quinia, in a somewhat larger dose.

477. *Pills of Sulphate of Quinidia.*

℞. Quinidiæ Sulphatis. ℈j;
Pulveris Acaciæ. gr. xij;
Mellis q. s. ut fiat massa in pilulas ix dividenda.
Signa.—Take two pills every hour, until eight are taken.

Used in intermittent disease in the same way as the sulphate of quinia. There seems to be little difference in the strength and effect of the two salts.

478. *Powders of Salicine.*

℞. Salicini. gr. xxiv;
Sacchari. ℈iv.
Misce, et divide in partes viij æquales.
Signa.—A powder to be taken three times a day.

Salicine possesses decided anti-intermittent powers. It has to be used, however, in doses double or treble those of the sulphate of quinia. Kemberle.

479. *Pills of Piperine.*

℞. Piperini, gr. xij;
Extracti Gentianæ, q. s. ut fiant pilulæ xij.
Signa.—One every hour during the apyrexia of fever.

Piperine is a crystalline substance procured from the black pepper, and was thought to possess considerable febrifuge powers. It is stated by Pelletier, however, that its supposed virtues depend only on the acrid concrete oil with which it is associated, and that when perfectly pure it is quite inert.

480. *Pills of Arsenic and Opium.*

℞. Acidi Arseniosi, gr. j;
Pulveris Opii, gr. iv;
Saponis, gr. xj.
Fiat massa, et divide in pilulas xvj.
Signa.—Give one pill three times a day, and increase gradually, according to circumstances, watching the effect.

In intermittent fever, and local diseases of an intermittent character. MARCUS.

481. *Pills of Muriate of Ammonia, Arsenic, and Opium.*

℞. Ammoniæ Muriatis, ℥ss;
Pulveris Opii, gr. viij;
Acidi Arseniosi, gr. iv;
Syrupi, q. s. ut fiant pilulæ xxxij.
Signa.—Of which one may be given three times a day.

In intermittent fever.

Each of these pills contains one-eighth of a grain of arsenious acid. The utmost care is requisite in compounding this and all other formulas for solid arsenic. Its specific action must be closely watched.

482. *Pills of Sulphate of Copper and Extract of Bark.*

℞. Cupri Sulphatis, gr. iv;
Extracti Cinchonæ gr. xxxij;
Syrupi, q. s. ut fiat massa, in pilulas xvj dividenda.
Signa.—One to be taken three times a day.

In obstinate intermittents. CHAPMAN.

483. *Pills of Sulphate of Copper and Opium.*

℞. Cupri Sulphatis, gr. iij;
Pulveris Opii, gr. iv;
Syrupi Acaciæ, q. s. ut fiat massa, in pilulas xij dividenda.
Signa.—Give one pill every three hours in obstinate intermittents.

This combination is sometimes serviceable, when quinia fails. CHAPMAN.

484. *Pills of Sulphate of Bebeerine.*

℞. Bebeerinæ Sulphatis, ℥j;
Pulveris Acaciæ, gr. xv;
Mellis, q. s.
Fiat massa, et divide in pilulas xxx.
Signa.—Give one pill every two hours.

This article has attracted attention in Edinburgh and Paris, and the experiments, thus far reported, warrant a more extended trial of its powers, in intermittent diseases, such as periodical headache and neuralgic affections.

485. *Powders of Phloridzine.*

℞. Phloridzini, gr. xv;
Sacchari, ℥j.
Misce et divide in pulveres v.
Signa.—Give one powder every three hours during the intermission.

This principle, obtained from the bark of the apple tree and allied species, is a good tonic, and when used in large doses, may answer as a substitute for quinia in the treatment of periodical diseases. KONINCK.

DECOCTIONS AND INFUSIONS.

486. *Decoction of Cinchona.*

℞. Cinchonæ Rubræ contusæ, ℥j;
Aquæ bullientis, Oj.
Coque per sextam horæ partem, et adde—
Serpentariæ, ℥ss;
Aurantii Corticis, ℥ij.
Macera per horam dimidiam in vase leviter clauso et cola.
Signa.—Dose, a wineglassful.

If the bark is boiled longer than ten minutes, it deposits

extractive and resinous matter, becomes paler, and is less efficient. The last ingredients are directed to be infused, because their aromatic properties would be dissipated by decoction.

487. *Peruvian Bark Mixture.*

℞. Decocti Cinchonæ Rubræ, f℥vj;
Tincturæ Cinchonæ Compositæ, f℥j;
Acidi Sulphurici Aromatici, ♏x.
Misce.
Signa.—A tablespoonful may be taken every two hours.

Used in obstinate intermittents.

SOLUTIONS, MIXTURES, ETC.

488. *Mixture of Anarcotin* (*Narcotina*).

℞. Anarcotinæ, gr. xxx;
Acidi Sulphurici Diluti, f℥j;
Syrupi, f℥ss;
Aquæ, f℥iijss.
Misce.
Signa.—Dose, a teaspoonful.

Anarcotin is an alkaloid obtained from opium by the action of ether. When first discovered it was called narcotina, being, as was then supposed, a narcotic principle. But as it does not possess a narcotic character, Dr. A. Garden proposes to prefix the privative letter *a* to the name, and henceforth designate it as anarcotin.

Sir W. O'Shaughnessy tried the remedy in sixteen cases of remittent and several of intermittent fever. He pronounced it a more powerful antiperiodic than quinine.

Dr. Garden states that he administered it in seven hundred cases of intermittent fever, with satisfactory results.

As an antiperiodic, a grain and a half to three grains may be given at suitable intervals. In doses of five to fifteen grains it sometimes causes nausea, giddiness and vomiting. As the dose of anarcotin is so much larger than morphia, it is important to have an article entirely freed from the presence of the latter, as otherwise dangerous results might follow its use.

489. *Solution of the Sulphate of Quinia.*

℞. Quiniæ Sulphatis, gr. viij;
Acidi Sulphurici Aromatici, gtt. x;
Aquæ, f℥j.
Fiat solutio.

A teaspoonful contains one grain of the salt. The strength of this solution can be increased by adding three drops of elixir of vitriol for every two grains of the salt.

490. *Mixture of Sulphate of Quinia.*

℞. Quiniæ Sulphatis, gr. xx;
Acidi Sulphurici Diluti, ♏xx;
Sacchari, ʒij;
Aquæ Cinnamomi, fʒijss.
Misce.
Signa.—A teaspoonful for a dose, every hour during the apyrexia of intermittents.

By the addition of sulphuric acid, a super-sulphate of quinia is formed, which is soluble in the aqueous menstruum.

491. *Sulphate of Quinia in Syrup.*

℞. Quiniæ Sulphatis, gr. xvj;
Syrupi Zingiberis, fʒij.
Misce.
Signa.—A teaspoonful to be given every hour during the apyrexia.

The French physicians employ a wine and tincture of quinia, which, however, are not superior to the compound used in this country. Both in Europe and America, and especially in Italy, the dose is carried to a much greater extent than we have directed. Eight, ten, fifteen, twenty, and even thirty grains have been given by the Italians, without manifest injury and with successful results. Such doses, however, are seldom admissible in this country; and a cure can generally be accomplished by giving sixteen or twenty grains in twenty-four hours, repeated in half doses for three or four successive days.

S. G. Morton.

492. *Mixture of Ferrocyanate of Quinia.*

℞. Quiniæ Ferrocyanatis, gr. iv;
Alcoholis, fʒj.
Solve et adde—
Aquæ Camphoræ, fʒvij.
Misce.

This preparation is said to be more active than the sulphate, whence it should be given in less doses; a teaspoonful of the solution (which will contain half a grain of the salt) may be taken every hour or two hours, according to circumstances. Pills of the ferrocyanate of quinia are prepared with simple mucilage, and administered like the sulphate.

The acetate, citrate, muriate, nitrate, and other salts of quinia, have also been employed in Europe, and occasionally in this country. They possess no advantages over the ordinary preparations, and are given in the same manner and quantity.

493. *Mixture of Sulphate of Quinia and Tartaric Acid.*

℞. Quiniæ Sulphatis, gr. vj;
Acidi Tartarici, gr. iij;
Syrupi, f℥j.
Misce.
Signa.—Dose, a teaspoonful.

The advantages of this preparation, are increased solubility and diminished bitterness of the quinine salt. CASORATI.

494. *Mixture of Sulphate of Quinia and Tannic Acid.*

℞. Quiniæ Sulphatis, gr. x;
Acidi Tannici, gr. iij;
Aquæ Cinnamomi, f℥vj;
Syrupi Aurantii Corticis, f℥ij.
Misce.
Signa.—A teaspoonful every two hours.

The object proposed in this formula, is to diminish the intense bitterness of the sulphate. This is accomplished by the formation of an insoluble tannate. R. H. THOMAS.

495. *Mixture of Sulphate of Quinidia and Tannic Acid.*

℞. Quinidiæ Sulphatis, gr. xvj;
Acidi Sulphurici Aromatici, ♏xvj;
Aquæ, f℥jss;
Acidi Tannici, gr. iv;
Syrupi Aurantii Corticis, f℥ss.
Fiat mistura.
Signa.—A dessert-spoonful every three hours.

From experiments made in the Pennsylvania Hospital and other public institutions, the sulphate of quinidia has been found as active as the corresponding salt of quinia, and may be substituted for it in most cases, without disadvantage.

496. *Mixture of Sulphate of Cinchonia and Iron.*

℞. Cinchoniæ Sulphatis, gr. xxxij;
Tincturæ Ferri Chloridi, f℥ss;
Aquæ, f℥iijss.
Misce.
Signa.—A teaspoonful every three hours in sweetened water.

This mixture has been prescribed with great benefit at the Philadelphia Dispensary in cases of intermittent fever attended with anæmia. G. MARTIN.

497. *Mixture of Tincture of Bark and Citrate of Potassa.*

℞. Succi Limonis, f℥jss;
Potassæ Carbonatis, ℥j;
Tincturæ Cinchonæ, f℥j;
Aquæ Cinnamomi, f℥iij.
Misce.
Signa.—A tablespoonful every two hours.

Used to promote insensible perspiration while taking the bark. B. ELLIS.

498. *Mixture of Apiol.*

℞. Apiolis, f℥j;
Alcoholis, f℥ij;
Syrupi, f℥ss;
Aquæ, f℥ij.
Misce.
Signa.—A teaspoonful every two hours.

Apiol, a principle obtained from the seeds of apium petroselinum or common parsley, has recently attracted some attention in Europe as an efficient substitute for quinine in the treatment of intermittent diseases. It has also been prescribed beneficially for dysmenorrhœa. Although possessed of decided activity, its true value as a remedy is not yet definitively ascertained. JORET ET HOMOLLE.

499. *Mixture of Fluid Extract of Bark and Cardamom.*

℞. Extracti Cinchonæ Fluidi, f℥j;
Tincturæ Cardamomi Compositæ, f℥ij;
Syrupi Zingiberis, f℥j.
Misce.
Signa.—A dessert-spoonful for a dose.

Used both as a tonic, and as an anti-intermittent remedy.

500. *Mixture of Fowler's Solution and Elixir of Opium.*

℞. Liquoris Potassæ Arsenitis, f℥j;
Tincturæ Opii Deodoratæ, ♏xxx;
Aquæ Cinnamomi, f℥iv.
Fiat mistura.
Signa.—A tablespoonful for an adult, a teaspoonful for a child; to be administered every two or three hours, during the apyrexia of intermittents, watching the effect.

501. *Enema of Quinia and Morphia.*

℞. Quiniæ Sulphatis, gr. xv;
Morphiæ Sulphatis, gr. ¼;
Mucilaginis Amyli, f℥ij.
Misce pro enemate.

When administered in this way, quinia exerts an immediate and powerful effect on miasmatic diseases. It is particularly indicated in cases of intermittent or remittent fever, attended with irritability of the stomach.

Sub-Class II.—ORDINARY TONICS.

POWDERS AND PILLS.

502. *Powders of Columbo, Ginger, &c.*

℞. Pulveris Calumbæ,
Ferri Subcarbonatis,
Pulveris Rhei,
Pulveris Zingiberis, āā ℥j.
Misce et fiant pulveres xij.
Signa.—One to be taken three times a day, in molasses.

Used in dyspepsia, anæmia, and chlorosis.

503. *Powders of Iron reduced by Hydrogen.*

℞. Ferri Redacti, ℥ss;
Sacchari, ℥j.
Misce et divide in pulveres xij.
Signa.—Take one powder three times a day in syrup or molasses.

This has been much used in anæmia and chlorosis. It is one of the best preparations of iron.

504. *Powders of Ipecacuanha, Iron, and Mercury.*

℞. Ferri Subcarbonatis, gr. xlviij;
Pulveris Ipecacuanhæ, gr. vj;
Hydrargyri cum Cretâ, gr. xij.
Misce et divide in pulveres vj.
Signa.—Take one powder twice a day.

Used with decidedly good effect in chlorosis.

S. Ashwell.

505. *Powder of Columbo and Potassio-tartrate of Iron.*

℞. Ferri et Potassæ Tartratis, ℈ij ;
Pulveris Calumbæ, ʒss.
Fiant pulveres iv.
Signa.—One every three or four hours, in syrup.

An excellent tonic, used in dyspepsia and chlorosis.

506. *Powders of Subnitrate of Bismuth.*

R. Bismuthi Subnitratis, ʒss ;
Sacchari. ʒj.
Misce et divide in pulveres x.
Signa.—Give one powder three times daily.

Used in gastrodynia, chronic vomiting, and chronic diarrhœa. RECAMIER.

507. *Pills of Vallet's Mass.*

℞. Pilulæ Ferri Carbonatis, ʒj ;
Ferri Subcarbonatis, q. s. ut fiant pilulæ xx.
Signa.—A pill to be taken morning, noon, and night.

This is one of the best of the chalybeate preparations, and may be used whenever it is desirable to introduce iron into the system.

508. *Pills of Lactate of Iron.*

℞. Ferri Lactatis, ʒj ;
Extracti Glycyrrhizæ, ʒss ;
Mellis, q. s. ut fiat massa in pilulas xl dividenda.
Signa.—Take one pill three times daily.

Used in dyspepsia, anæmia, chlorosis, &c.

This salt is well suited to the diseases of childhood, as its taste is not unpleasant, and it can be administered in the form of a syrup. TROUSSEAU.

509. *Pills of Cinchona and Camphor.*

℞. Extracti Cinchonæ Rubræ, ʒj ;
Extracti Opii, gr. j ;
Camphoræ, gr. xij ;
Pulveris Cinchonæ, q. s. ut fiant pilulæ xij.
Signa.—One to be taken three times a day. RATIER.

510. *Pills of Ammoniated Copper.*

℞. Cupri Ammoniati, ℈j ;
Confectionis Rosæ, q. s. ut fiant pilulæ xl.
Signa.—One to be taken morning and evening.

Prescribed in epilepsy.

511. *Pills of Iron and Strychnia.*

℞. Strychniæ, gr. j ;
Ferri Redacti, gr. xxx ;
Mucilaginis Tragacanthæ, q. s. ut fiat massa in pilulas xxx dividenda.
Signa.—One pill three times daily.

This is an efficient combination, serviceable in the treatment of chlorosis and dyspepsia.

512. *Pills of Extract of Ignatia, Aloes, and Opium.*

℞. Extracti Ignatiæ Alcoholici, gr. viij ;
Pulveris Aloës purificatæ, gr. vj ;
Pulveris Opii, gr. ij ;
Mucilaginis Acaciæ, q. s. ut fiat massa in pilulas xxiv dividenda.
Signa.—One pill three times daily.

Recommended in dyspepsia.

If attended with constipation, the opium can be omitted.
R. P. Thomas.

513. *Compound Pills of Ammoniated Iron.*

℞. Ferri Ammoniati,
Galbani, āā ℥j ;
Assafœtidæ, ℥ij ;
Castorei, ℈j ;
Tincturæ Valerianæ, q. s.
Contunde in massam, et divide in pilulas singulas gr. iij pendentes.
Signa.—Let two pills be given night and morning.

Used successfully in a variety of chronic nervous diseases, hysteria, and anomalous nervous symptoms. Berends.

514. *Pills of Citrate of Iron and Quinia.*

℞. Ferri et Quiniæ Citratis, ℥ss;
Pulveris Acaciæ, gr. x;
Mellis despumati, q. s.
Fiat massa et divide in pilulas xx.
Signa.—Take one pill every four hours.

This preparation has been much employed in hemicrania, chlorosis, and anæmia. It is one of the most valuable tonics.

515. *Pills of Sulphate of Iron and Quinia.*

℞. Quiniæ Sulphatis, gr. xij;
Ferri Sulphatis exsiccatæ, gr. xxiv;
Pulveris Opii, gr. iij;
Syrupi, q. s.
Misce, et fiant pilulæ xij.
Signa.—Take two pills three times daily.

Used in chlorosis and anæmia. KIRKBY.

516. *Pills of Vallet's Mass and Quinia.*

℞. Pilulæ Ferri Carbonatis, ℥ss;
Quiniæ Sulphatis, gr. x.
Fiat massa et divide in pilulas xv.
Signa.—One pill every four hours.

Given in hemicrania, and as a tonic in anæmia.

THOMAS.

517. *Pills of Iron, Red Pepper, &c.*

℞. Pulveris Aloës Socotrinæ,
Ferri Sulphatis exsiccatæ, āā ℈j;
Mastiches, gr. x;
Pulveris Capsici, ℈j;
Syrupi, q. s.
Fiat massa in pilulas xx dividenda.
Signa.—Take one pill every four hours.

In chlorosis. COPLAND.

518. *Mitchell's Tonic Pills.*

℞. Extracti Quassiæ, ℥ij;
Extracti Conii, gr. x;
Ferri Subcarbonatis, gr. x;
Liquoris Potassæ Arsenitis, gtt. x.
Fiat massa, in pilulas xl dividenda.
Signa.—Take one pill three times daily.

Used in dyspepsia. J. K. MITCHELL.

519. *Pills of Nitrate of Silver.*

℞. Argenti Nitratis, gr. iv ;
Avenæ Farinæ, gr. iv ;
Syrupi, q. s.
Fiat massa, et divide in pilulas xij.
Signa.—Take one pill every three hours.

Given in epilepsy, gastrodynia, chronic gastritis, and obstinate vomiting.

520. *Compound Pills of Nitrate of Silver.*

℞. Argenti Nitratis, gr. v ;
Pulveris Opii, ℈ss ;
Pulveris Camphoræ,
Pulveris Myristicæ, āā ℈j ;
Mucilaginis Acaciæ, q. s. ut fiat massa, et divide in pilulas xx.
Signa.—Dose, a pill morning and evening.

In chorea and epilepsy.

521. *Pills of Iodide of Potassium and Manganese.*

℞. Potassii Iodidi,
Manganesii Sulphatis exsiccatæ, āā ℥j ;
Mellis, q. s.
Fiat massa, in pilulas xxx dividenda.
Signa.—To be kept in a well-stopped bottle. Take one pill morning and night.

The salts of manganese have recently been introduced as substitutes for the corresponding preparations of iron.

HANNON.

522. *Pills of Iron and Gentian.*

℞. Ferri Redacti, ℈j ;
Extracti Gentianæ, ℈ij.
Fiat massa, et divide in pilulas xx.
Signa.—Take one pill three times a day.

An excellent combination for anæmic conditions of the system.

523. *Pills of the Sulphate of Iron and Quassia.*

℞. Ferri Sulphatis, ℥j ;
Extracti Quassiæ, ℥j.
Fiat massa et divide in pilulas xl.
Signa.—One to be taken morning, noon, and night.

In dyspepsia, &c.

524. *Pills of Oxide of Zinc.*

℞. Zinci Oxidi, ℈ij ;
Confectionis Rosæ, q. s. ut fiant pilulæ x.
Signa.—One three or four times a day.

In epilepsy, chorea, &c.

Dr. Chapman speaks favorably of this medicine, and recommends us to begin with the above dose, and gradually to increase it.

525. *Pills of Lactate of Zinc.*

℞. Zinci Lactatis, gr. xxx ;
Syrupi Acaciæ, q. s. ut fiat massa in pilulas xx dividenda.
Signa.—Take one pill three times daily.

Lactate of zinc has recently been introduced as an efficient agent in the treatment of diseases of the nervous system. It is particularly recommended in epilepsy. HERPIN.

526. *Pills of Nitromuriate of Gold.*

℞. Auri Nitromuriatis, gr. v ;
Pulveris Glycyrrhizæ, ʒjss ;
Mucilaginis Acaciæ, q. s. ut fiat massa, in pilulas lxxv dividenda.
Signa.—One thrice a day.

In secondary syphilis.

This metal is placed under the head of tonics by Dr. Chapman, and we have followed his example. Although once much extolled, it is now seldom used. B. ELLIS.

By the term nitro-muriate, the author means what is now known as the chloride of gold. According to the *Paris Codex*, it is prepared by heating in a sand-bath, "one part of fine leaf gold, with three parts of nitro-muriatic acid, and evaporating the solution carefully until the odor of chlorine is perceptible. It is then set aside to cool and crystallize."

527. *Electuary of Cinchona, Rust of Iron, &c.*

℞. Pulveris Cinchonæ Rubræ,
Ferri Subcarbonatis, āā ʒj ;
Mellis, q. s. ut fiat electuarium.
Signa.—To be made into pills of the ordinary size, of which four may be taken three times a day.

528. *Pills of the Oxide of Silver.*

℞. Argenti Oxidi, gr. vj;
Pulveris Acaciæ, gr. vj;
Aquæ, q. s. ut fiat massa in pilulas xij dividenda.
Signa.—Take one pill three times daily.

Used with much success in pyrosis. Also highly recommended in menorrhagia. B. Lane.

INFUSIONS AND DECOCTIONS.

529. *Infusion of Sage, Boneset, and Cascarilla.*

℞. Salviæ,
Eupatorii, āā ℥ss;
Cascarillæ, ℥j;
Aquæ bullientis, Oj.
Digere per horas duas et cola.
Signa.—Dose, a wineglassful every three or four hours.

Used in hectic fever.

530. *Infusion of Columbo and Ginger.*

℞. Calumbæ contusæ, ℥j;
Zingiberis contusæ, ℥ij;
Aquæ bullientis, Oj.
Fiat infusum et cola.
Signa.—Give a wineglassful every two hours.

This infusion, freely used, is adapted to chronic diarrhœa.

531. *Infusion of Columbo, Rhubarb, &c.*

℞. Cari,
Calumbæ contusæ,
Rhei contusi, āā ℈j;
Aquæ ferventis, f℥iv.
Digere per horas duas, cola, et adde—
Tincturæ Rhei, f℥j;
Syrupi Zingiberis, f℥ij.
Misce.
Signa.—Dose, a teaspoonful to a tablespoonful for children, according to their age.

In diarrhœa.

532. *Compound Infusion of Wild Cherry Bark.*

℞. Pruni Virginianæ, ℥j;
Aurantii Corticis, ℥ij;
Aquæ, Oj.
Macera per horas sex et cola.
Signa.—A wineglassful may be taken every hour or two in consumptive cases, asthma, &c.

533. *Compound Infusion of Virginia Snake-root.*

℞. Serpentariæ,
Contrayervæ, contusæ, āā ℥v;
Aquæ bullientis, Oj.
Digere per horas duas, cola, et adde—
Tincturæ Serpentariæ, f℥ij.
Misce.
Signa.—Dose, a tablespoonful.

Used in the convalescence of typhoid fever and other diseases of an asthenic type. GUY'S HOSPITAL PHARM.

534. *Compound Infusion of Quassia.*

℞. Quassiæ,
Serpentariæ,
Aurantii Corticis, āā ℥ss;
Aquæ bullientis, Oij.
Fiat infusum et cola.
Signa.—A teacupful to be taken cold, three times a day.

535. *Infusion of Chamomile and Orange Peel.*

℞. Anthemidis, ℥ss;
Aurantii Amari Corticis, ℥ij;
Aquæ, Oj.
Macera per horas decem et cola.
Signa.—Dose, a wineglassful four times a day.

The infusion of chamomile made with cold, is in general more grateful to the patient than when made with boiling water. The same remark applies to infusions generally, and they are also less liable to ferment. B. ELLIS.

536. *Infusion of Hops.*

℞. Humuli, ℥j;
Aquæ ferventis, Oj.
Digere per horas duas et exprime.
Signa.—A wineglassful may be taken three or four times a day.

In dyspepsia.

537. *Compound Infusion of Gentian.*

℞. Gentianæ contusæ, ℥ss;
Aurantii Dulcis Corticis,
Cardamomi, āā ℥j;
Aquæ bullientis, Oj.
Fiat infusum.

Gentian is an excellent bitter. The above preparation is given in wineglassful doses, in debility of the digestive organs, &c.

538. *Compound Decoction of Angustura Bark.*

℞. Angusturæ contusæ, ℥ss;
Aquæ, f℥xij.
Coque ad f℥vj, et adde—
Tincturæ Cinnamomi, f℥ij;
Syrupi Aurantii Corticis, f℥j.
Misce.
Signa.—Dose, a tablespoonful every three hours.

This may be used in all cases in which a tonic and mild stimulant remedy is indicated. BERENDS.

539. *Decoction of Dogwood Bark.*

℞. Cornûs Floridæ contusæ, ℥j;
Aquæ, Oj.
Coque per horam dimidiam, et cola.
Signa.—A wineglassful may be given every hour, as a substitute for Peruvian bark in intermittents, or as an ordinary tonic, every two hours.

540. *Decoction of Peruvian Bark and Valerian.*

℞. Cinchonæ Rubræ contusæ, ℥j;
Aquæ, Ojss.
Coque per sextam horæ partem, cola, et adjice—
Valerianæ contusæ, ℥j.
Macera per horam unam et cola.
Signa.—Dose, a wineglassful four times daily.

This was a favorite prescription with the late Dr. Joseph Parrish, in rheumatic and nervous headache and hemicrania.

541. *Infusion of Acorns.*

℞. Pulveris Glandis Quercûs torrefactæ, ℥j;
Aquæ bullientis, Oj.
Fiat infusum.
Signa.—Three or four teacupfuls may be taken during the day, and be augmented according to circumstances.

The above is a favorite remedy with the Germans. "It is one of the most successful in mesenteric atrophy, commencing rachitis, glandular swellings, asthma, and cough. Continued for a long time, it is one of the most powerful means we possess for destroying the scrofulous disposition."—HUFELAND, *Treatise on Scrofula*, p. 215.

MIXTURES, TINCTURES, ETC.

542. *Griffith's Myrrh Mixture.*

℞. Myrrhæ, ℥j;
Sacchari, ℥ij;
Potassæ Carbonatis, gr. xxv.
Tere simul, et adde gradatim—
Aquæ Rosæ, f℥vijss;
Spiritûs Lavandulæ, f℥ss.
Dein adde—
Ferri Sulphatis crystallizati, in pulverem contriti, ℈j.
Fiat mistura.
Signa.—Dose, a tablespoonful every four hours.

This preparation was formerly much used as a tonic in phthisis.

543. *Mixture containing Protoxide of Iron.*

℞. Ferri Sulphatis, ℥j;
Magnesiæ, gr. x;
Sacchari, ℥j;
Aquæ Cinnamomi, f℥viij.
Misce.
Signa.—Take a tablespoonful every three hours.

An efficient tonic in phthisis. DONOVAN.

544. *Mixture of Ammonio-Tartrate of Iron.*

℞. Ferri et Ammoniæ Tartratis, ℥ij;
Syrupi Aurantii Corticis, f℥ij;
Tincturæ Cardamomi, f℥j;
Aquæ, f℥v.
Fiat mistura.
Signa.—A dessert-spoonful every four hours.

Used in chlorosis and debility. The ammonio-tartrate is one of the most valuable of the ferruginous preparations. Its pleasant taste and ready solubility render it available in the treatment of the diseases of childhood.

545. *Mixture of Sulphate of Iron.*

℞. Ferri Sulphatis, ℈j;
Acidi Sulphurici, gtt. iv;
Sacchari, ʒij;
Aquæ, fʒiv.
Misce.
Signa.—A teaspoonful for a dose, to be repeated every two, three, or four hours, much diluted.

546. *Mixture of Sulphate of Iron and Elixir of Vitriol.*

℞. Ferri Sulphatis, gr. iv;
Acidi Sulphurici Aromatici, ♏xx;
Aquæ destillatæ, fʒj.
Fiat mistura.
Signa.—A teaspoonful to be taken three times a day in a wineglassful of water.

547. *Mixture of Sulphuric Acid.*

℞. Acidi Sulphurici Diluti, fʒiv;
Syrupi Aurantii Corticis, fʒjss;
Aquæ Cinnamomi, fʒj.
Fiat mistura.
Signa.—Take a teaspoonful three times a day in a wineglassful of water.

Used in anæmia and debility. SIR JAMES CLARK.

548. *Mixture of Sulphuric and Nitric Acids.*

℞. Acidi Sulphurici Diluti, fʒij;
Acidi Nitrici Diluti, fʒj;
Syrupi, fʒij;
Aquæ Menthæ Piperitæ, fʒiv.
Misce.
Signa.—Take a dessert-spoonful in water every three hours.

Dr. W. J. Anderson and several other English practitioners have found the acid treatment effectual in arresting the watery discharges in diarrhœa, cholera morbus, and cholera. In the last disease, the doses should be larger, and more frequently administered.

549. *Vinegar Draught.*

℞. Aceti, f℥j;
Tincturæ Cardamomi Compositæ,
Syrupi, āā f℥ss;
Aquæ, f℥x.
Misce.
Signa.—To be taken in such portions as the stomach can bear.

Used in sick headache.

550. *Wine of Gentian and Orange Peel.*

℞. Pulveris Gentianæ,
Aurantii Corticis Dulcis, āā ℥ss;
Vini Portensis, Oj.
Macera per dies tres, et cola.
Signa.—Give a wineglassful two or three times a day.

In dyspepsia.

551. *Mixture of Cinchona, Valerian, &c.*

℞. Tincturæ Cinchonæ,
Tincturæ Valerianæ, āā f℥j;
Tincturæ Cardamomi Compositæ, f℥ij;
Aquæ Menthæ Piperitæ, f℥iv.
Fiat mistura.
Signa.—A tablespoonful may be given every third hour.

This is especially designed as a tonic in nervous temperaments.

552. *Elixir of Aloes, Zedoary, Gentian, &c.*

℞. Pulveris Aloës Socotrinæ, ℥j;
Pulveris Zedoariæ,
Pulveris Gentianæ,
Croci,
Pulveris Rhei,
Agarici, āā ℥j;
Spiritûs Vini Gallici, Oij.
Macera per dies septem, cola, et adde—
Syrupi, f℥ij.
Misce.
Signa.—Dose, a tablespoonful three times a day, in water.

This is the celebrated Baûme de Vie, or Elixir of Life. It is a powerful tonic, and one of the most effectual febrifuge medicines. In intermittents, especially, it is justly celebrated.

553. *Mixture of Nitrate of Silver.*

℞. Argenti Nitratis, gr. j;
Aquæ destillatæ, f℥ij;
Sacchari, ℥ij.
Fiat mistura.
Signa.—A teaspoonful every two hours.

Used in the diarrhœa of newly-weaned infants. This is accompanied by the occasional injection of one-fourth of a grain of the salt in mucilage. HIRSCH.

554. *Fowler's Solution and Potassio-Tartrate of Iron.*

℞. Ferri et Potassæ Tartratis, gr. xvj;
Aquæ Cinnamomi, f℥j.
Solve, et adde—
Syrupi, f℥j;
Liquoris Potassæ Arsenitis, ♏xxxij.
Fiat mistura.
Signa.—A teaspoonful three times daily, for a child one or two years old.

Used in eczema infantile, and other skin diseases of early life. ERASMUS WILSON.

555. *Mixture of Muriated Tincture of Iron.*

℞. Tincturæ Ferri Chloridi, f℥ij;
Glycerinæ, f℥xiv.
Misce.
Signa.—Dose, a teaspoonful every three hours.

This old and valuable tincture still retains the first rank among the chalybeates. Its ferruginous taste is so much modified by combination with glycerine as to remove the chief objection to its use.

Recommended as an astringent in diarrhœa, and other exhausting discharges; and as a tonic, by Bell and Velpeau, in erysipelas.

556. *Mixture of Ammonio-Citrate of Iron.*

℞. Ferri et Ammoniæ Citratis, ℥ij;
Syrupi, f℥j;
Aquæ, f℥iij.
Fiat mistura.
Signa.—Take a teaspoonful every four hours.

Employed in amenorrhœa and chlorosis. It may be given, also, in less quantity, in the anæmia of childhood.

557. *Mixture containing Peracetate of Iron.*

℞. Tincturæ Ferri Chloridi, f℥iij;
Liquoris Ammoniæ Acetatis, f℥iij;
Syrupi Aurantii Corticis, f℥j;
Acidi Acetici, ♏x.
Misce.
Signa.—A dessert-spoonful four times daily.

Prescribed as a ferruginous tonic for children, and for anæmia in adults. It has slight diuretic properties.

J. F. Meigs.

558. *Mixture of Perchloride of Iron and Nitric Acid.*

℞. Tincturæ Ferri Chloridi,
Acidi Nitrici Diluti, āā f℥j;
Syrupi Zingiberis, f℥xiv;
Aquæ Menthæ Viridis, f℥iv.
Misce.
Signa.—A tablespoonful every four hours.

Recommended as an astringent and tonic in phthisis.

R. Bennett.

559. *Steel Wine.*

℞. Ferri et Potassæ Tartratis, ℥ss;
Vini Xerici, Oj.
Solve, et cola.

Recommended as a uniform and effectual substitute for the officinal vinum ferri. The dose is a tablespoonful, containing about four grains of the potassio-tartrate of iron.

J. C. Pooley.

560. *Mixture of Bestucheffe's Tincture and Valerian.*

℞. Spiritûs Ferri Chlorati Ætherei (*Ph. Borus.*), f℥ij;
Aquæ Cinnamomi,
Syrupi Aurantii Corticis, āā f℥j;
Infusi Valerianæ, f℥v.
Misce.
Signa.—Shake well, and take a tablespoonful every two hours.

"Bestucheffe's Nervine Tincture," or "Lamotte's Golden Drops," as the preparation is variously called, is a favorite in Germany in the treatment of chlorosis, anæmia, and hysteria.

Sobernheim.

561. *Mixture of Pernitrate of Iron.*

℞. Liquoris Ferri Nitratis, f℥j;
Syrupi, f℥ij;
Aquæ, f℥v.
Fiat mistura.
Signa.—Give a teaspoonful every three hours.

This preparation is very serviceable in all forms of diarrhœa, but more especially in chronic mucous diarrhœa, hemorrhage from the bowels, uterine hemorrhage, &c.

NELIGAN.

562. *Mixture of Pyrophosphate of Iron.*

℞. Ferri Pyrophosphatis, ℥j;
Syrupi,
Aquæ Cinnamomi, āā f℥ij.
Misce.
Signa.—Take a teaspoonful an hour after each meal.

M. Robiquet called attention to the superior advantages of the pyrophosphate over other salts of iron. Its taste is less unpleasant, it is freely soluble in water, it agrees well with the stomach, and is easily assimilated.

563. *Mixture of Iodide of Iron and Manganese.*

℞. Liquoris Ferri et Manganesiæ Iodidi, f℥ss;
Glycerinæ, f℥jss.
Misce.
Signa.—Take a teaspoonful every three hours.

This is used as a tonic, alterative, and emmenagogue. The salts of manganese are beginning to attract attention. The formulas for their preparation, by Prof. Procter, will be found in the *American Journal of Pharmacy*, vol. xxv, p. 198.

564. *Elixir of Pepsine.*

℞. Pepsini (*Boudault*), ℥jss;
Aquæ, f℥vjss;
Vini Xerici, f℥xijss;
Alcoholis, f℥iij;
Sacchari, ℥j.
Solve et cola.
Signa.—A tablespoonful, containing fifteen grains of pepsine, is administered immediately after each meal, in cases of indigestion.

MIALHE.

CLASS XIV.

ALTERATIVES.

ALTERATIVES are medicines that re-establish the healthy functions of the animal economy, without producing any active evacuation. This class of remedies, therefore, embraces numerous preparations which produce a slow but decided effect on the various secreting organs, sometimes without any sensible increase of the secretions themselves, but in other instances obviously augmenting or magnifying them. Such is the action of minute doses of mercury, iodine, and other substances upon the glandular apparatus. These medicines are generally classed with stimulants and tonics, some of them with narcotics, and others have been placed with those preparations to which they seem most allied when given in an overdose—sialagogues, for example. Without attempting to investigate this question farther than regards practical convenience, we proceed in this place to indicate the more active and important Alteratives; merely premising the familiar truth, that medicines of almost every class of the materia medica become alteratives by being administered in very small doses at intervals of a few hours.

PILLS AND POWDERS.

565. *Calomel Pills.*

℞. Hydrargyri Chloridi Mitis, gr. ij;
Confectionis Rosæ, q. s. ut fiant pilulæ xij.
Signa.—One may be taken every two hours.

The use of calomel in minute doses has become very general, and deservedly so. In the hepatic and intestinal complaints of children, it is productive of the happiest results when carefully managed.

In infants, for example, the sixteenth or the eighth of a grain, repeated every hour or two hours, according to age and circumstance, will often check diarrhœa, cholera infantum, and dysentery, which have resisted every other treatment. If the discharges are attended by pain and tenesmus, small doses of powdered opium or laudanum may be added; but, as a general rule, the anodyne had better be given by injection.

The preparation called blue pill (pilulæ hydrargyri) is indicated in similar conditions, and is especially beneficial whenever an alterative is called for. A grain given at bedtime, or even a grain in divided portions through the day, will often produce the desired effect. Hence its extensive use in chronic and obscure derangements of the digestive organs, especially of the stomach and liver; in the whole class of syphilitic affections; glandular enlargements, &c.

In like manner, all the mercurial preparations mentioned under the head of SIALAGOGUES, become alteratives by cautious administration in doses more or less minute, and especially when they are given in conjunction with the preparations of sarsaparilla.

566. *Pills of Calomel, Quinia, and Opium.*

℞. Hydrargyri Chloridi Mitis, gr. vj;
Pulveris Opii, gr. iij;
Quiniæ Sulphatis, gr. xij;
Syrupi, q. s. ut fiat massa in pilulas xij dividenda.
Signa.—One night and morning.

567. *Pills of Blue Mass, Quinia, and Aloes.*

℞. Pilulæ Hydrargyri,
Quiniæ Sulphatis,
Pulveris Aloës Socotrinæ, āā gr. xij;
Syrupi Rhei, q. s. ut fiant pilulæ xij.
Signa.—One three times a day.

Either of the above prescriptions is adapted to the condition that follows bilious intermittent, or remittent fever. They may be denominated tonic alteratives.

568. *Pills of Red Iodide of Mercury.*

℞. Hydrargyri Iodidi Rubri, gr. ss;
Extracti Glycyrrhizæ, gr. viij.
Misce et divide in pilulas viij.
Signa.—Two in the morning and two at night; dose to be gradually and cautiously augmented.

569. *Corrosive Sublimate Pills.*

℞. Hydrargyri Chloridi Corrosivi, gr. j.
Solve in aquâ destillata, dein adde—
Micæ Panis,
Sacchari, āā gr. x vel q. s. ut fiant pilulæ xx.
Signa.—Take one pill every four hours as an alterative.

DZONDI.

570. *Pills of the Arseniate of Iron.*

℞. Ferri Arseniatis, gr. iij ;
Lupulinæ, ʒj.
Fiat massa et divide in pilulas xlviij.
Signa.—Give one pill night and morning.

Prescribed by Dr. Biett in scrofulous, cancerous, and herpetic diseases.

Arsenic is a powerful alterative, and should be administered with the utmost circumspection.

571. *Asiatic Pills.*

℞. Acidi Arseniosi, gr. j ;
Piperis, gr. xij.
Tere simul in pulverem subtilissimum, et adde—
Pulveris Acaciæ, gr. ij ;
Aquæ, q. s.
Misce, et divide in pilulas xvj.
Signa.—Take one pill morning and night.

Much used by Biett for tuberculous lepra.

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572. *Iodide of Arsenic and Hemlock Pills.*

℞. Arsenici Iodidi, gr. j ;
Extracti Conii, ℈ij.
Fiat massa, et divide in pilulas xvj.
Signa.—Take one pill morning and night.

Given in lepra, impetigo, and cancerous disease.

573. *Pills of Iodide of Silver, &c.*

℞. Argenti Iodidi,
Potassæ Nitratis, āā gr. x.
Tere simul in pulverem subtilissimum, dein adde—
Pulveris Glycyrrhizæ, ʒss ;
Sacchari, ℈j ;
Mucilaginis Acaciæ, q. s.
Fiant pilulæ xl.
Signa.—Take one pill three times daily.

Used successfully in the gastric affections of the Irish peasantry. C. PATTERSON.

574. *Pills of Bromide of Iron.*

℞. Ferri Bromidi, gr. xij ;
Confectionis Rosæ, gr. xviij.
Misce, et fiant pilulæ xx.
Signa.—Two pills to be taken in the morning, and two in the evening, or one three times a day.

In hypertrophy of the heart and scrofulous affections.

Dr. Robert Dick strongly recommends the use of the bromide of iron in dyspeptics with strumous habits.

575. *Pills of Calomel and Ox Gall.*

℞. Hydrargyri Chloridi Mitis, ℈j ;
Fellis Bovini inspissati, gr. xv ;
Saponis, gr. x, vel q. s.
Fiat massa, in pilulas xx dividenda.
Signa.—Take two pills at bedtime.

These pills are alterative and deobstruent.

576. *Burnt Sponge.*

℞. Spongiæ Ustæ, ℥j ;
Sacchari, ℈j.
Misce, et divide in chartulas vj.
Signa.—One three times a day, gradually augmenting the dose.

In bronchocele.

It is well known that iodine was first discovered in sea-weed and sponges ; and the latter having long had the reputation of being a cure for goitre, it was found that iodine was the active remedial agent. We give above a prescription for the use of sponge, as formerly in vogue, but now nearly superseded by the preparations of pure iodine.

TINCTURES, MIXTURES, ETC.

577. *Preparations of Iodine.*

That iodine is one of the most powerful alteratives at present known, there can be no question. There are few diseases dependent upon or connected with morbid secretion of the glandular structures, but what are more or less modified by its

use, while in others it acts as a direct curative agent. It is chiefly, however, in scrofulous, glandular, and cutaneous affections that it acts most beneficially, dispersing indurations of the glands, and restoring the secretions of the cutaneous and mucous apparatus; whence its advantages in eruptive diseases, bronchitis, leucorrhœa, amenorrhœa, &c. &c. It has been found to restore suppressed hemorrhoidal and catamenial discharges, and when pushed too far, has even produced alarming hemorrhage of the lungs, nose, and uterus. These facts should make the practitioner extremely cautious in its administration, beginning with small doses, and watching their effects. Should it produce any of the inconveniences already mentioned, or dizziness, nausea, purging, burning of the skin or swelling of the gums, it should be at once suspended, or given less frequently and in smaller doses.

578. *Ethereal Tincture of Iodine.*

℞. Iodinii, gr. vj;
Ætheris, f℥ij.
Misce.
Signa.—Dose, ten drops two or three times a day, largely diluted. Fifty drops contain one grain of iodine.

Given in cutaneous and glandular diseases. MAGENDIE.

579. *Compound Tincture of Iodine.*

℞. Iodinii, ℥ss;
Potassii Iodidi, ℥j;
Alcoholis, Oj.
Fiat tinctura.
Signa.—Dose, five to fifteen drops in sweetened water.

This is a good preparation of iodine, but in practice it is generally superseded by the simple tincture for external use, and by Lugol's solution for internal employment.

580. *Solution of Iodine with Iodide of Potassium.*

℞. Iodinii, gr. iij;
Potassii Iodidi, gr. vj;
Aquæ destillatæ, f℥j.
Solve.
Signa.—Dose, ten drops thrice a day in a draught of cold water.

If it produce dizziness, pain in the bowels, or other unpleasant symptoms, diminish the quantity.

The author of *Illustrations of Pulmonary Consumption*, strongly recommends this formula in catarrh, phthisis, &c. It has a powerful effect in glandular disease, and all affections of the mucous membranes. S. G. MORTON.

581. *Mixture of Iodide of Potassium and Sarsaparilla.*

℞. Potassii Iodidi, ℈ij;
Aquæ, f℥iij;
Sacchari, ℥j;
Extracti Sarsaparillæ Fluidi, f℥ss.
Misce.
Signa.—Dose, a tablespoonful three times daily.

This valuable combination may be used in scrofula, secondary syphilis, and obstinate skin diseases. In fact it may be given advantageously in most cases requiring an alterative.

582. *Mixture of Tincture of Iodine.*

℞. Tincturæ Iodinii, f℥j;
Mucilaginis Acaciæ, f℥ij;
Aquæ destillatæ, f℥vj.
Fiat mistura.
Signa.—A tablespoonful every two hours.

Employed in cases of ulceration accompanied by purulent discharge from the meatus auditorius, and in the scrofulous diathesis.

583. *Solution of Iodide of Iron.*

℞. Ferri Iodidi, ℥j;
Aquæ destillatæ, f℥j;
Sacchari, ℥ij.
Fiat solutio.
Signa.—Dose, six to ten drops, morning, noon, and night, in a wineglassful of cold water.

The officinal solution—"Syrupi Ferri Iodidi"—keeps much better than an aqueous solution of the pure salt, and is therefore generally preferred. Ten to twenty drops are given, diluted with water.

584. *Lugol's Solutions.*

Dr. Lugol, one of the first experimenters with iodine, announced that its solubility in water could be increased to any desired extent by the addition of iodide of potassium. He devised three preparations of different strengths, viz.:

No. 1. Or the solution for internal use, contains of iodine, 1 part; iodide of potassium, 2 parts; and water, 20 parts.

No. 2. The rubefacient solution, contains of iodine, 1 part; iodide of potassium, 2 parts; and water, 12 parts. (*Formula* 723.)

No. 3. The caustic solution contains, of iodine, 1 part; iodide of potassium, 1 part; and water, 2 parts. (*Formula* 688.)

The first of these has retained his name, and it alone should be dispensed upon a prescription calling for Lugol's solution. It is the compound iodine solution of the Pharmacopœia, viz.:

℞. Liquoris Iodinii Compositi, f℥ss.
Signa.—Give ten drops, in sweetened water, three times a day.

Used in goitre and scrofulous diseases.

585. *Magendie's Anti-epileptic Iodine Solution.*

℞. Potassii Iodidi, ℥iv;
Iodinii, gr. ij;
Aquæ Menthæ Piperitæ, f℥vj.
Fiat solutio.
Signa.—Dose, a teaspoonful thrice daily.

Used in epilepsy and catalepsy.

586. *Mixture of Iodide of Potassium.*

℞. Potassii Iodidi, ℥j;
Syrupi Zingiberis, f℥j;
Aquæ, f℥v.
Fiat mistura.
Signa.—Take a tablespoonful three times a day.

Prescribed in secondary syphilis, lupus, and various cutaneous diseases.

587. *Mixture of Iodo-hydrargyrate of Potassa.*

℞. Potassii Iodidi, gr. iijss;
Aquæ destillatæ, f℥j.
Solve, dein adde—
Hydrargyri Iodidi Rubri, gr. ivss.

The compound salt in this solution may be assumed at eight grains, although there is a small excess of the iodide of potassium. The dose is from two to five drops, containing from the thirtieth to the twelfth part of a grain, which may be repeated three times a day, much diluted. DR. CHANNING.

588. *Another Form.*

℞. Hydrargyri Iodidi Viridis, gr. iij;
Potassii Iodidi, ʒij;
Tincturæ Gentianæ Compositæ,
Syrupi Sarsaparillæ Compositi, āā fʒij.
Fiat mistura.
Signa.—A teaspoonful three times daily.

An invaluable remedy in secondary syphilis, and various skin diseases, as well as an excellent alterative in follicular laryngitis and ulcerations of the epiglottis.

HORACE GREEN.

589. *Syrup of Iodurretted Biniodide of Mercury.*

℞. Hydrargyri Iodidi Rubri, gr. j;
Potassii Iodidi, ʒj;
Aquæ, fʒj;
Syrupi, fʒv.
Misce.
Signa.—A tablespoonful three times a day.

This is employed like the two preceding formulas in secondary syphilis and obstinate skin diseases.

HÔPITAL SAINT LOUIS.

590. *Iodine Waters.*

The physicians of Europe, and especially of Paris, have made extensive and salutary use of iodine waters, both internally and externally. In these the iodine is very much diluted, and generally with the addition of more or less common salt. These waters are prepared on a large scale and with great precision by the pharmaceutists of Paris; but they have been but partially introduced into this country. M. Magendie, however, gives formulas for some extemporaneous iodine waters, which may answer all the purposes of the more elaborate preparations. The following is an example:

℞. Potassii Iodidi, gr. vj;
Iodinii, gr. j;
Aquæ, Oij.
Fiat solutio.

This solution is to be taken at meals, in place of common water.

591. *Another Form.*

℞. Syrupi Ferri Iodidi, f℥ss;
Syrupi Acaciæ, f℥ij;
Aquæ Acidi Carbonici, f℥viij.
Misce.
Signa.—Take one-half at a draught, and then carefully cork the bottle to retain the gas in the remainder.

DUPASQUIER.

592. *Mixture of Donovan's Solution.*

℞. Liquoris Arsenici et Hydrargyri Iodidi, f℥ij;
Syrupi Zingiberis, f℥ss;
Aquæ, f℥iijss.
Misce.
Signa.—A dessert-spoonful an hour after each meal.

DONOVAN.

Donovan's solution affords a simple and efficient means of introducing into the system the three great alteratives. It has been found effectual in eradicating various chronic diseases, and especially the skin diseases of the scaly character, and venereal affections.

Bromine.

This substance, which is allied to chlorine and iodine in its habitudes, is obtained from salt springs and other mineral waters. In medicine, it is chiefly used in combination with potassa, although it may be given in solution, as in the following prescription:

593. *Solution of Bromine.*

℞. Brominii, f℥ss;
Syrupi Amygdalæ, f℥ss;
Aquæ, f℥ij.
Misce.
Signa.—Dose, five drops three times daily.

Given in scrofula. POURCHE.

594. *Bibron's Antidote.*

℞. Brominii, ℥v;
Potassii Iodidi, gr. iv;
Hydrargyri Chloridi Corrosivi, gr. ij.
Misce.
Signa.—Take ten drops in a tablespoonful of wine or brandy.

As these salts are but slowly soluble in bromine, there would be no objection, in cases of emergency, to dissolving them in a little water before the addition of the bromine.

According to the experiments of Prof. Bibron, Prince Paul of Wurtemberg, Dr. W. A. Hammond, and others, this bromine mixture has proved a valuable antidote to the bite of the rattlesnake. The dose should be repeated every fifteen or twenty minutes, until relief is obtained.

595. *Solution of Bromide of Potassium.*

℞. Potassii Bromidi, ℈ij ;
Syrupi Aurantii Corticis, f℥j ;
Aquæ, f℥iij.
Fiat mistura.
Signa.—Give a tablespoonful three times a day.

The bromide of potassium is prescribed like the iodide, as an alterative, but is less efficacious. Huette and Thielmann recommend it in priapism, nymphomania, and satyriasis. Sir Charles Locock commends its efficiency in hysterical epilepsy, and directs it to be given in doses of five to ten grains, three times daily, for a week previous to, and during each menstrual period.

596. *Solution of Bromine and Bromide of Potassium.*

℞. Potassii Bromidi, ℥ij+℈ij ;
Aquæ, f℥ij.
Solve. Dein adjice—
Brominii [by weight], ℥j ;
Aquæ, ad f℥iv.
Misce.

This is recommended as a convenient standard formula for the use of bromine. It can readily be diluted to any extent by the addition of water.

Each fluidrachm contains five grains of the bromide of potassium and fifteen grains of bromine.

Bromine is an excellent remedy in the treatment of hospital gangrene. J. Lawrence Smith.

597. *Mixture of Lugol's and Fowler's Solutions.*

℞. Liquoris Iodinii Compositi,
Liquoris Potassæ Arsenitis, āā f℥ij.
Misce.
Signa.—Take ten drops three times daily.

Used in chorea, psoriasis, ptyriasis, and lepra.

598. *Pearson's Solution.*

℞. Sodæ Arseniatis, gr. j ;
Aquæ, f℥j.
Fiat solutio.
Signa.—Dose, twenty drops three times a day.

Used in the scaly and other skin diseases. It has less tendency than Fowler's solution to offend the stomach.

An arseniate of ammonia was introduced by Biett, and employed by him in the same strength as the foregoing solution, *i. e.*, one grain to the fluidounce, and given in the dose of twenty drops. Its virtues are similar to those of Fowler's and Pearson's solutions.

599. *Mixture of De Valangin's Solution and Iron.*

℞. Liquoris Arsenici Chloridi (*Lond.*), f℥v ;
Tincturæ Ferri Chloridi, f℥iij ;
Aquæ destillatæ, f℥j.
Misce.
Signa.—Take forty drops three times daily, after meals.

Arsenic in its various forms has long been held in repute as an alterative in lupus and cancerous affections. This combination secures both a tonic and an alterative effect. In strength, De Valangin's solution is intermediate between Pearson's and Fowler's solutions, five fluidrachms containing nearly one grain. T. Hunt.

600. *Mixture of Sal Ammoniac.*

℞. Ammoniæ Muriatis, ℥ij ;
Sacchari, ℥j ;
Aquæ Menthæ Viridis, f℥iijss.
Fiat mistura.
Signa.—A tablespoonful every three hours.

The German writers describe sal ammoniac as an excellent alterative and resolvent. Dr. Watson, of London, recommends it in facial neuralgia; and Dr. Ebden, of Bengal, speaks highly of its use in nervous headache, clavus hystericus, and neuralgic affections generally.

601. *Solution of Phosphate of Ammonia.*

℞. Ammoniæ Phosphatis, ℥ss ;
Aquæ destillatæ, f℥vj.
Fiat solutio.
Signa.—A tablespoonful to be taken every four hours.

This is a formula of Dr. Buckler, who recommends it in those cases of gout and rheumatism in which lithic acid is present in the urine; as well as in all the modifications of those diseases, especially when they are associated with chronic thickening of the white tissues.

602. *Cod-liver Oil* (*Oleum Morrhuæ*).

This preparation, which is now divested in a great measure of its nauseous smell and taste, is given in doses of half an ounce, three or four times a day. To children, a teaspoonful.

The peculiar flavor which the best oil retains can be rendered less perceptible by introducing equal bulks of the oil and cherry-laurel water into a bottle, and shaking them well together. After subsidence the water is to be separated from the oil.

It is of much service in all strumous affections, and in the chronic forms of gout and rheumatism. It may be taken alone, or in milk, or on the froth of porter. Some persons swallow it in coffee, in lemon-juice, or with some of the aromatic waters.

Dr. Bradshaw recommends a weak infusion of flaxseed, flavored with lemon-peel, and sweetened to please the taste. He says: "I pour a small quantity of infusion into a glass, on which is added the oil, and again another small quantity of infusion upon it. In this manner, the dose may be swallowed, and will slip down without offending the palate, and generally is well retained even by irritable stomachs." The same author says: "Another mode has been successful when many have failed, and will be found equally valuable: It is the yelk of an egg beat up with boiling water and sugar, with which may be mixed a dessert-spoonful of brandy; and on this, the dose may be given without producing that nausea so frequently experienced when conveyed by other vehicles."

In the Editor's experience, the form of emulsion has proved to be one of the least satisfactory modes of exhibiting this article. He is in the habit of administering it in the pure state, directing the patient to chew a piece of orange-peel or take a mintdrop before and after each draught; or, what is equally effectual, to rinse the mouth and gargle the throat with vinegar, before and after the dose.

603. *Mixture of Cod-liver Oil.*

℞. Olei Morrhuæ, ℥ss;
Liquoris Potassæ, gtt. xl;
Aquæ Menthæ Piperitæ, f℥ss.
Misce, et fiat haustus.

The draught to be washed down with a teaspoonful of lemon-juice, to liberate the oil on the stomach. DUNGLISON. *New Rem.*, 6th ed., p. 557. PERCIVAL.

604. *Another Form, for Children.*

℞. Olei Morrhuæ, ℥j ;
Vitellum unius Ovi.
Tere simul et adde gradatim—
Syrupi Aurantii Corticis, f℥j ;
Aquæ Aurantii Florum, f℥ijss.
Fiat emulsio.
Signa.—Give a tablespoonful three times daily.

Used in scrofulous affections, and in rickets.
TROUSSEAU.

605. *Mixture of Cod-liver Oil and Quinia.*

℞. Quiniæ, gr. xvj ;
Alcoholis, f℥ij.
Fiat solutio. Dein adde—
Olei Morrhuæ, Oss.
Solve cum leni calore.

The quinia indicated in the prescription can be readily procured from a solution of the sulphate by the addition of ammonia. If the oil and quinia be gently heated in a water-bath, the solution takes place as the alcohol evaporates.
LYMAN.

606. *Mixture of Cod-liver Oil and Iodine.*

℞. Iodinii, gr. jss ;
Olei Morrhuæ, ℥v.
Tere simul.
Signa.—Dose, a tablespoonful three times a day.

The quantity of iodine can be increased without materially changing the appearance of the solution. FLEISCHMANN.

607. *Mixture of Corrosive Sublimate.*

℞. Hydrargyri Chloridi Corrosivi, gr. ij ;
Aquæ destillatæ, f℥v ;
Aquæ Cinnamomi, f℥ij ;
Syrupi, f℥j.
Misce.
Signa.—Dose, a tablespoonful thrice a day.

This excellent alterative is often administered in compound

syrup of sarsaparilla. It is better, however, to give it in a simpler form, to prevent any chemical change. It is particularly serviceable in the secondary forms of syphilis, and in syphilitic rheumatism.

608. *Mixture of Nitro-muriatic Acid.*

℞. Acidi Nitromuriatici, f℥j ;
Aquæ, f℥viij.
Misce, et adde—
Spiritûs Ætheris Nitrosi, f℥ij.
Fiat mistura.
Signa.—From twenty drops to half a teaspoonful to be given every three hours, in a wineglassful of sweetened water.

This acid is also employed as a bath in hepatic derangements. For this purpose, put a teaspoonful of the acid into a quart of warm water, and apply it to the region of the liver night and morning, by means of a soft sponge.

609. *Diluted Nitric Acid.*

℞. Acidi Nitrici, f℥j ;
Aquæ, Oij ;
Sacchari, ℥j.
Fiat mistura.
Signa.—One-eighth of this quantity may be taken daily, in divided doses.

In lues venerea.

Nitric acid may be prescribed both as a tonic and an alterative in the above form. It is best taken through a quill, as the teeth suffer when it comes in contact with them. It sometimes arrests the colliquative sweats of hectic fever when other remedies fail. FERRIAR, *Med. Hist.*

610. *Mixture of Hyposulphite of Soda.*

℞. Sodæ Hyposulphitis, ℥ij ;
Infusi Quassiæ, f℥vj.
Fiat solutio.
Signa.—A tablespoonful three times daily.

In France the hyposulphite is employed in chronic cutaneous and scrofulous affections. It has likewise been used with advantage in rheumatism. This particular formula was resorted to successfully in an obstinate case of yeasty vomiting, accompanied with sarcinæ ventriculi. R. NEALE.

611. *Artificial Harrowgate Water.*

℞. Potassæ Sulphatis cum Sulphure (*Ed.*), ℥j;
Potassæ Bitartratis, ℥ss;
Magnesiæ Sulphatis, ℥vj;
Aquæ destillatæ, Oij.
Solve.
Signa.—One-half, taken in draughts, constitutes a full dose.

The above ought to be taken in the morning, before breakfast, and be followed by a walk, to produce the desired effect.

DUFFIN.

612. *Falk's Antacrid Tincture.*

℞. Pulveris Guaiaci Resinæ, ℥j;
Terebinthinæ Canadensis, ℥j;
Olei Sassafras, f℥ij;
Alcoholis, f℥viij.
Misce, macera per dies septem, et cola; dein adde—
Hydrargyri Chloridi Corrosivi, ℈j.
Misce.
Signa.—Take twenty drops in wine, or sweetened water, night and morning.

Dr. E. D. Fenner, of New Orleans, recommends this preparation in dysmenorrhœa and the consequent sterility.

Dr. G. Emerson, of Philadelphia, has found it a valuable alterative in secondary syphilis.

CLASS XV.

ASTRINGENTS.

Doctor Cullen describes astringents to be "such substances as, applied to the human body, produce contraction and condensation in the soft solids, and thereby increase their density and force of cohesion." "And by the operation of this corrugating power," adds Dr. Murray, "either directly exerted on a part, or extended by sympathetic action, the morbid affections arising from a state of relaxation are supposed to be removed."

In the use of this class of medicines a caution suggests itself, namely, that they should not be given to arrest evacuations that are critical, and designed by nature to relieve a plethoric state of the system, unless such evacuations exist to an alarming extent.

POWDERS AND PILLS.

613. *Compound Powder of Alum.*

℞. Aluminis, ℈j;
Pulveris Kino, gr. v.
Fiant pulveres v.
Signa.—One to be given every two hours.

This compound, though much employed by some practitioners, contains substances which would be incompatible with each other if given in solution. Used in menorrhagia, obstinate diarrhœa, &c.

614. *Oxide of Silver and Aromatic Powder.*

℞. Argenti Oxidi, gr. xij;
Pulveris Aromatici, gr. xxx.
Misce, et fiant pulveres xij.
Signa.—One powder every three hours.

Sir James Eyre and Dr. Butler Lane extol highly the use of the oxide of silver in the various forms of passive hemorrhage, and particularly in menorrhagia.

615. *Powders of Sugar of Lead and Calomel.*

℞. Hydrargyri Chloridi Mitis,
Plumbi Acetatis, āā gr. j.
Fiant pulveres iv.
Signa.—Give one powder every three hours.

In cholera infantum.

The above dose is adapted to any period between ten and twenty months of age. T. D. Mitchell.

616. *Powders of Sugar of Lead, Calomel, and Ipecacuanha.*

℞. Hydrargyri Chloridi Mitis,
Pulveris Ipecacuanhæ, āā gr. ij;
Plumbi Acetatis, gr. viij.
Misce, et divide in pulveres viij.
Signa.—Give one powder every three hours.

Used in cholera infantum. The quantity of sugar of lead appears large, but experience proves that it may be given, both with safety and benefit, to a child from one to three years old.
D. F. Condie.

617. *Powders of Alum and Opium.*

℞. Aluminis, ℥ss;
Pulveris Opii, gr. iij.
Fiant pulveres vj.
Signa.—One to be taken every three hours.

In diarrhœa.

618. *Powders of Subnitrate of Bismuth and Magnesia.*

℞. Bismuthi Subnitratis, ℥j;
Pulveris Acaciæ, ℥ss;
Magnesiæ, ℈j.
Misce, et divide in pulveres xij.
Signa.—Give one powder every four hours.

Used in the diarrhœa of phthisis. T. Thomson.

619. *Powders of Subnitrate of Bismuth.*

℞. Bismuthi Subnitratis, gr. vj;
Sacchari, gr. xij.
Fiant pulveres vj.
Signa.—Place a powder on the tongue of a child (one year old), three or four times daily.

Used in the diarrhœa of children.

RECAMIER, TROUSSEAU.

620. *Powders of Subcarbonate of Bismuth.*

℞. Bismuthi Subcarbonatis, gr. viij;
Sacchari Lactis, gr. xvj.
Fiant pulveres viij.
Signa.—Administer one powder every three hours.

Recommended both for the mucous diarrhœa of children and for gastrodynia in adults, the properties of the subcarbonate being analogous to those of the subnitrate of bismuth.

621. *Pills of Sugar of Lead and Calomel.*

℞. Plumbi Acetatis, ʒss;
Hydrargyri Chloridi Mitis, gr. v;
Confectionis Rosæ, q. s.
Fiant pilulæ x.
Signa.—One to be given every two hours.

In hemorrhage, and especially in hematemesis.

622. *Pills of Sugar of Lead and Opium.*

℞. Plumbi Acetatis, gr. xij;
Pulveris Opii, gr. vj;
Confectionis Rosæ, q. s. ut fiat massa in pilulas vj dividenda.
Signa.—One to be taken every hour.

Used in hæmoptysis and other hemorrhages. It is also useful for checking the profuse perspiration in consumption.

623. *Pills of Alum, Catechu, and Opium.*

℞. Aluminis,
Catechu, āā gr. vj;
Extracti Opii, gr. j.
Fiat massa, et divide in pilulas vj.
Signa.—Give one pill every three hours.

In passive hemorrhage, and in atonic mucous discharges.

624. *Pills of Rhatany and Rhubarb.*

℞. Extracti Krameriæ, ℥j;
Extracti Rhei Alcoholici, ℈j;
Syrupi Zingiberis, q. s.
Fiat massa, et divide in pilulas xxx.
Signa.—Take one pill every two hours.

Prescribed in diarrhœa and chronic dysentery.

625. *Pills of Creasote and Opium.*

℞. Creasoti, gtt. v;
Pulveris Opii, gr. iij;
Pulveris Acaciæ, gr. vij.
Tere simul, et divide in pilulas x.
Signa.—One pill to be taken every three hours.

Used in chronic diarrhœa, and in chronic bronchitis; also employed for the relief of toothache, by pressing a pill into the cavity of a carious tooth. BLASIUS.

626. *Pills of Kino and Opium.*

℞. Pulveris Kino, gr. xx;
Pulveris Opii, gr. ij;
Mucilaginis Acaciæ, q. s. ut fiant pilulæ vj.
Signa.—Take one every four hours.

In diarrhœa, pyrosis, &c.

627. *Pills of Opium and Tannic Acid.*

℞. Acidi Tannici, gr. xx;
Pulveris Opii, gr. v;
Glycerinæ, q. s. ut fiat massa in pilulas x dividenda.
Signa.—One pill every four hours.

Glycerin is a good excipient for tannic acid, reducing it in bulk, and thus enabling the prescriber to combine it with other articles in pills of a moderate size. This combination is very serviceable in affections of the bowels.

628. *Pills of Tannin and Morphia.*

℞. Acidi Tannici, ℈j;
Morphiæ Sulphatis, gr. j;
Mucilaginis Acaciæ, q. s.
Divide in pilulas x.
Signa.—One to be given every two hours.

Blue mass may be added according to circumstances. In diarrhœa and dysentery.

629. *Pills of Gallic Acid.*

℞. Acidi Gallici, ℈j;
Extracti Gentianæ, gr. x.
Fiat massa, in pilulas x dividenda.
Signa.—Give one pill every three hours.

Used in hæmaturia, and other hemorrhages.

Gallic acid is also employed beneficially in pyrosis, and in the night-sweats of consumption.

MIXTURES, INFUSIONS, ETC.

630. *Mixture of Monesia.*

℞. Extracti Chrysophylli (*Monesiæ*), ℥ss;
Aquæ, f℥iij.
Tere simul, cola, et adde—
Syrupi Acaciæ, f℥j.
Misce.
Signa.—Dose, a tablespoonful every four hours.

The extract, imported from South America, under the name of monesia, is a mild stimulant and astringent. It is recommended in chronic dysentery, diarrhœa, and other abnormal or hemorrhagic discharges. TROUSSEAU.

631. *Infusion of Matico.*

℞. Piperis Angustifolii, ℥j;
Aquæ bullientis, Oj.
Macera per horas duas et cola.
Signa.—Take a wineglassful every two hours.

This has been used to check the discharge in hæmoptysis, hæmatemesis, and dysentery, as well as in leucorrhœa and gonorrhœa.

632. *Parrish's Camphor Mixture.*

℞. Aquæ Camphoræ, f℥iij;
Spiritûs Lavandulæ Compositi, f℥j;
Sacchari, ℥j.
Fiat mistura.
Signa.—Give a tablespoonful every two hours in diarrhœa and cholera morbus, adding ten drops of laudanum when there is much pain. JOS. PARRISH.

633. *Hope's Mixture.*

℞. Aquæ Camphoræ, f℥iv;
Acidi Nitrici, ♏iv;
Tincturæ Opii, ♏xl.
Fiat mistura.
Signa.—Dose, a tablespoonful every two hours.

In diarrhœa and dysentery.

This is a well-known and very efficacious preparation analogous to *Hope's Mixture.* If the nitric acid is added in larger proportion, it is liable to defeat the object of the prescription. The original formula contained a fluidrachm of nitrous acid, forty drops of laudanum, and eight fluidounces of camphor-water, and was given in doses of two fluidounces every three hours. THOS. HOPE.

634. *Chalk Mixture.*

℞. Cretæ Præparatæ, ℥jss;
Sacchari,
Pulveris Acaciæ, āā ℥j;
Aquæ destillatæ, f℥iv;
Olei Cinnamomi, ♏ij;
Tincturæ Opii, ♏xl.
Misce.
Signa.—Dose, a tablespoonful every two hours.

In diarrhœa and dysentery.

When a strongly astringent mixture is desirable, we add to the above formula two fluidrachms of the tincture of kino, or the same quantity of the tincture of krameria, catechu, or nutgalls.

635. *Mixture of Prepared Oyster-shell.*

℞. Testæ Præparatæ, ℥ij;
Sacchari,
Pulveris Acaciæ, āā ℥j;
Aquæ,
Aquæ Cinnamomi, āā f℥ij.
Misce.
Signa.—A teaspoonful every three hours for a child two years old.

This corresponds with the officinal "chalk mixture," substituting prepared oyster-shell for the chalk. In the "Children's Hospital" of this city this mixture has been successfully used for some years in the treatment of cholera infantum. It is

rendered more efficacious by the addition of one fluidrachm of paregoric, and three fluidrachms of the tincture of krameria, to every fluidounce of the mixture. T. H. Bache.

636. *Jackson's Cholera Mixture.*

℞. Spiritûs Lavandulæ Compositi,
Spiritûs Camphoræ, āā f℥ss;
Tincturæ Opii,
Spiritûs Ætheris Compositi, āā f℥ij.
Misce.
Signa.—Give twenty drops at short intervals in cholera morbus, and the early stages of cholera, to allay nausea and relieve pain.

This prescription was frequently used in the cholera of 1832 by Professor Saml. Jackson with the most satisfactory results.

637. *Decoction of Galls.*

℞. Gallæ contusæ, ℥ij;
Aquæ bullientis, f℥x.
Coque per sextam horæ partem, et cola.
A wineglassful of this is given every few minutes as an antidote, in cases of poisoning by any of the vegetable alkaloids, or by tartar emetic, sulphate of copper, sulphate of zinc, &c. &c. It may be rendered more agreeable by the addition of an aromatic, and some sugar, for administration in diarrhœa. Dose, a tablespoonful.

638. *Mixture of Extract of Logwood and Catechu.*

℞. Extracti Hæmatoxyli, ℥iij;
Tincturæ Catechu, f℥ij;
Sacchari, ℥j;
Aquæ, f℥vij.
Misce.
Signa.—A tablespoonful to be given once in three hours.

In the advanced stages of diarrhœa and dysentery.

639. *Blackberry Syrup with Aromatics.*

℞. Syrupi Rubi, f℥ij;
Spiritûs Lavandulæ Compositi, f℥ij;
Aquæ Cinnamomi, f℥vj;
Aquæ, f℥j.
Misce.
Signa.—Dose, a teaspoonful for a child.

Employed with much benefit as a mild astringent and stimulant in cholera infantum, and the bowel complaints of children.

R. P. Thomas.

640. *Mixture of Ergot and Cinnamon.*

℞. Extracti Ergotæ Fluidi,
Tincturæ Cinnamomi, āā f℥ss;
Syrupi, f℥j;
Aquæ, f℥ij.
Misce.
Signa.—Give a teaspoonful every three hours.

Recommended in menorrhagia, and other hemorrhages.

641. *Mixture of Geranium Maculatum.*

℞. Extracti Geranii Fluidi (*Thayer*), f℥vj;
Tincturæ Cinnamomi, f℥ij;
Syrupi Rosæ Gallicæ, f℥ij.
Misce.
Signa.—Take a dessert-spoonful every two hours.

The geranium is the best of the indigenous astringent roots, and may be beneficially employed in cases of diarrhœa and chronic dysentery. Its freedom from unpleasant taste renders it particularly valuable in the diseases of childhood.

642. *Mixture of Tincture of Catechu and Laudanum.*

℞. Tincturæ Catechu, f℥j;
Tincturæ Opii, f℥j;
Pulveris Acaciæ, ℥ij;
Aquæ Cinnamomi, f℥vj.
Misce.
Signa.—A tablespoonful every two hours.

In diarrhœa.

643. *Creasote Mixture.*

℞. Creasoti, gtt. vj;
Alcoholis, f℥j;
Syrupi Amygdalæ, f℥ss;
Aquæ, f℥ijss.
Fiat mistura.
Signa.—Dose, a dessert-spoonful diluted, every two or three hours.

Used in hemorrhages and to allay sick stomach.

644. *Alcoholic Solution of Creasote.*

℞. Creasoti,
Olei Caryophylli, āā gtt. j;
Alcoholis, f℥j.
Misce.
A drop or two of this solution dropped into the cavity of an aching tooth, is said to afford immediate relief.

645. *Solution of the Perchloride of Iron.*

℞. Ferri Chloridi, ℥ij;
Aquæ, f℥j.
Solve.
Signa.—Apply with a brush.

Used to arrest gangrene or hemorrhage resulting from disease, or accident, or in consequence of surgical operations. If the solid perchloride of iron be kept in a bottle, a small portion of it, after a time, deliquesces into a thick brown liquid, which is constantly kept in a state of supersaturation, by the undeliquesced portions of the salt. This liquid, applied by means of a spun-glass brush to a bleeding surface, arrests the flow of blood almost instantaneously.

J. Zachariah Laurence.

646. *Monsel's Solution.*

℞. Liquoris Ferri Subsulphatis, f℥iv.
Signa.—Apply as an astringent lotion.

Like the solution of the perchloride of iron, this is a powerful styptic and antiseptic. It has been extensively employed for arresting hospital gangrene, and for checking hemorrhages and abnormal discharges.

647. *Alum Whey.*

℞. Lactis Vaccinæ bullientis, Oj;
Pulveris Aluminis, ℥ij.
Coque per sextam horæ partem, et cola.
Signa.—A cupful to be taken occasionally.

In diabetes and passive hemorrhages. Foy.

648. *Mixture of Gallic Acid and Morphia.*

℞. Acidi Gallici, ℥j;
Morphiæ Acetatis, gr. j;
Alcoholis, f℥j;
Syrupi Tolutani, f℥iij;
Aquæ, f℥iijss.
Misce.
Signa.—Dose, a tablespoonful.

Used in the London City Hospital for checking night-sweats in consumption. HUTCHINSON.

649. *Aromatic Syrup of Galls.*

℞. Pulveris Gallæ, ℥ss;
Pulveris Cinnamomi,
Macis, āā ℥ij;
Spiritûs Vini Gallici, f℥viij.
Misce, et macera per horas viginti quatuor.

Having been allowed to stand twenty-four hours, the resulting tincture is filtered into a saucer. Then two ounces of sugar, in lumps, are suspended on wire gauze just above the surface of the liquid. The latter is set on fire, and the flame melts the sugar and converts it partly into caramel, which drops into the liquid beneath. When the combustion stops, the syrup is stirred and filtered for use. The dose is a tablespoonful for an adult.

It is used in diarrhœa and chronic dysentery.
JOS. PARRISH.

650. *Mixture of Extract of Rhatany, &c.*

℞. Extracti Krameriæ, ℥j;
Syrupi Papaveris, *Lond.*,
Aquæ Rosæ, āā f℥ij.
Fiat mistura.
Signa.—A teaspoonful for a dose.

Given in passive hemorrhage and chronic dysentery.
M. FOUQUIER.

651. *Solution of Acetate of Lead.*

℞. Plumbi Acetatis, gr. v;
Aceti, gtt. v;
Sacchari, ℥j;
Aquæ, f℥j.
Fiat mistura.
Signa.—Give a teaspoonful to a child every hour or two, to allay the vomiting in cholera infantum. D. F. CONDIE.

652. *Enema of Acetate of Lead, &c.*

℞. Plumbi Acetatis, ℈j;
Tincturæ Opii, gtt. lx;
Aquæ tepidæ, f℥ij.
Fiat mistura.
Signa.—To be thrown up the rectum in uterine hemorrhage.
W. Dewees.

653. *Tannin Suppository.*

℞. Acidi Tannici, ℥j;
Olei Theobromæ, ℥ss.
Misce cum leni calore, et fiant suppositoria iv.

Employed in cases of bleeding piles, fissures of the anus, and mucous discharges from the rectum. Trousseau.

CLASS XVI.

ABSORBENTS, OR ANTACIDS.

Absorbents or Antacids form a class of remedies for correcting acidity in the stomach and bowels. As a general rule they should be preceded by an emetic or cathartic, or both. When a permanent effect is desired, they are usually combined with tonics and aromatics, and sometimes with narcotics. When given alone, they too frequently afford but transient relief.

POWDERS AND PILLS.

654. *Compound Cretaceous Powder with Opium.*

℞. Cretæ Præparatæ, ℥jss;
Pulveris Cinnamomi, ℥j;
Pulveris Piperis Longi, gr. viij;
Pulveris Opii, gr. vj.
Divide in chartulas xij.
Signa.—One three or four times a day.
In diarrhœa.

The above formula, with a slight alteration, is from the *London Pharmacopœia.*

655. *Powder of Crab's Claws and Rhubarb.*

℞. Chelæ Cancrorum, ℥j;
Pulveris Rhei, ℈ij.
Misce, et divide in pulveres iv.
Signa.—One may be taken once or twice a day, according to circumstances.
In acidity of the primæ viæ.

This preparation is called by the several names of crab's claws, eyes, and stones. It is a carbonate of lime united with some animal gelatine.

656. *Powder of Magnesia, Fennel-seed, and Cinnamon.*

℞. Magnesiæ, ℥ss;
Pulveris Fœniculi,
Pulveris Cinnamomi, āā ℥j.
Fiat pulvis.
Signa.—Dose, a small teaspoonful three or four times a day.

Given in dyspepsia, attended with acid eructations.

657. *Powder of Magnesia, Soda, and Ginger.*

℞. Magnesiæ, ℥ss;
Sodæ Bicarbonatis,
Pulveris Zingiberis, āā ℈j.
Misce.
Signa.—A small teaspoonful occasionally.

In cardialgia.

658. *Powder of Magnesia and Columbo.*

℞. Magnesiæ, ℥jss;
Pulveris Calumbæ, ℥j.
Misce, et divide in chartulas vj.
Signa.—One may be taken three times a day, in sugar and water.

In cardialgia.

659. *Powder of Charcoal, Carbonate of Magnesia, and Ginger.*

℞. Carbonis Ligni, ℥j;
Magnesiæ Carbonatis, ℈ij;
Pulveris Zingiberis, ℈j.
Misce, et divide in pulveres iv.
Signa.—One powder to be taken three times daily.

Used in dyspepsia, accompanied with acidity.

R. Dunglison.

660. *Pills of Soda, Rhubarb, &c.*

℞. Pulveris Rhei,
Sodæ Carbonatis exsiccatæ,
Extracti Gentianæ, āā ℈j;
Hydrargyri Chloridi Mitis, gr. iij.
Fiant pilulæ xx.
Signa.—One pill an hour after each meal.

Given in dyspepsia, attended with constipation.

MIXTURES, SOLUTIONS, ETC.

661. *Compound Chalk Mixture.*

℞. Misturæ Cretæ, f℥v;
Tincturæ Catechu,
Tincturæ Opii Camphoratæ, āā f℥ss.
Misce.
Signa.—A tablespoonful every three hours.

Prescribed in diarrhœa, accompanied by acidity or flatulence.

662. *Mixture of Salt of Tartar.*

℞. Potassæ Carbonatis Puræ, ℥j;
Sacchari, ℥ij;
Aquæ Menthæ Piperitæ, f℥iv;
Spiritûs Lavandulæ Compositi, f℥ij;
Tincturæ Opii, ♏xl.
Misce.
Signa.—A tablespoonful every two hours.

In sickness of the stomach, attended with acidity.

663. *Mixture of Salt of Tartar and Ammonia.*

℞. Spiritûs Ammoniæ Aromatici, f℥j;
Potassæ Carbonatis Puræ, ℥ij;
Syrupi Zingiberis, f℥vj;
Aquæ, f℥iv.
Misce.
Signa.—A large teaspoonful for a dose.

In pyrosis and acid eructations.

664. *Mixture of Lime-water and Milk.*

℞. Liquoris Calcis,
Lactis recentis, āā f℥iij.
Misce.
Signa.—One or two tablespoonfuls for a dose.

In sickness of the stomach few remedies are more prompt in their effect.

665. *Magnesia-water.*

℞. Magnesiæ, ℥ij;
Aquæ bullientis, f℥iv.
Misce.
Signa.—Give a dessert-spoonful of the clear fluid every two hours.

This is an excellent antacid remedy, adapted to children. It is highly aperient. B. Ellis.

666. *Mixture with Ammonia, Magnesia, &c.*

℞. Magnesiæ, ℥j;
Spiritûs Ammoniæ Aromatici, f℥j;
Spiritûs Cinnamomi, f℥iij;
Aquæ, f℥vj.
Misce.
Signa.—A tablespoonful every two hours.

In the sickness accompanying pregnancy.

667. *Decoction of Columbo, Salt of Tartar, &c.*

℞. Calumbæ, ℥ss;
Aquæ, f℥viij.
Coque ad f℥v, cola, et adde—
Potassæ Carbonatis Puræ, gr. x;
Succi Limonis, f℥iij;
Tincturæ Opii, gtt. xij.
Misce.
Signa.—From a tea to a tablespoonful may be given every hour. Anti-emetic.

668. *Tonic Mixture with Carbonate of Soda.*

℞. Sodæ Carbonatis, ℈iv;
Infusi Gentianæ Compositi,
Aquæ Cinnamomi, āā f℥iij;
Tincturæ Cardamomi, f℥ss.
Fiat mistura.
Signa.—A tablespoonful every two or three hours.

In acidity, flatulence of the stomach, &c.

669. *Dyspeptic Lye.*

Take of

Hickory ashes, ...	1 quart.
Soot, ...	6 ounces.
Boiling water, ...	1 gallon.

Mix, and let them stand for twenty-four hours, frequently stirring the ingredients. A teacupful may be given of this liquor (decanted) three times a day. It should be decanted always at the end of twenty-four hours, for, by standing on the materials a long time, the water acquires *caustic properties*, and may do serious injury.

This domestic remedy we have thought best to give, as we received it, in the English language. It deserves an insertion, from the circumstance that it was employed by the late Dr. P. S. Physick, in his own case, and was of decided advantage when the usual alkaline remedies had failed.

B. Ellis.

BOOK II.

OF

EXTERNAL APPLICATIONS.

CLASS XVII.

CAUSTICS, OR ESCHAROTICS.

Caustics or cauteries are divided into the actual and potential. The first consists of fire itself; and the second, of those substances which destroy the living solids, either by excessive stimulation, or, as some suppose, by producing a chemical decomposition.

670. *Actual Cautery.*

The use of iron heated to a white-heat as a cautery extends back to the most ancient times. It is still occasionally employed in the treatment of diseases of the spine and joints; and also to arrest hemorrhage by searing incised or wounded surfaces. But the particular modes of its application belong more properly to the regular treatises on surgery than to a work of this kind.

671. *Firing.*

A modified form of the actual cautery has attracted some attention in Europe, from its great efficacy in the relief of neuralgic and other pains, paralysis, sciatica, and chronic rheumatism.

Dr. Corrigan, of Dublin, uses a simple instrument, consisting of a thick iron-wire shank, two inches long, inserted in a small wooden handle, and having on its extremity, which is slightly curved, a button of iron a quarter of an inch thick, and half an inch in diameter, the whole instrument being only six inches long. The face of the button for application is *quite flat.* If the instrument be larger than this, it will require too much time to heat it; if smaller, it will not retain the heat a sufficient length of time. In using the instrument, it is necessary to hold the button over the flame of a spirit-lamp, keeping the forefinger, which holds the wire, at the dis-

tance of half an inch from the button. As soon as the finger feels uncomfortably hot, the instrument is ready for use. It is applied as quickly as possible, the skin being tipped successively, at intervals of half an inch, over the whole affected part, as lightly and rapidly as possible, always taking care to bring the flat surface of the button fairly in contact with the skin. In this way, the process of firing a whole limb or the loins, making about one hundred applications, does not occupy a minute. You can ascertain at once whether the heat be sufficient. If you look sideways at the spots as you touch them, you will observe that each spot the iron has touched immediately becomes of a glistening white. The iron is never red-hot, and does not make an eschar.—BRAITHWAITE'S *Retrospect*, No. 13, p. 55.

672. *Caustic Potassa.*

The Causticum commune acerrimum is the pure potassa. When mixed with lime, its activity is lessened, and it is then called Causticum commune mitius. For the best mode of applying this substance, see the remarks on Issues. As this caustic spreads rapidly and eats deeply, care should be taken not to leave it on too long, when in the neighborhood of large blood-vessels. When, however, we wish to arrest its effects, they may be neutralized at once by vinegar, or vinegar and water.

673. *Vienna Paste* (*Potassa cum Calce*).

℞. Potassæ, ℥v;
Calcis, ℥vj;
Alcoholis, q. s. ut fiat magma.

The paste is spread on the part to be cauterized, and is allowed to remain for ten or fifteen minutes, while the surrounding skin is protected by adhesive plaster.

674. *Vienna Paste with Opium.*

℞. Potassæ cum Calce, ℥ij;
Pulveris Opii, ℥ss;
Saponis Mollis, q. s.
Misce.

This preparation is employed for the same purpose as the common caustic.

675. *Vienna Paste with Morphia.*

℞. Potassæ cum Calce, partes iij;
Morphiæ Muriatis, partem j;
Aquæ, q. s. ut fiat magma.
Misce.

The addition of the morphia modifies the painfulness of the caustic, without materially diminishing its activity.

676. *Caustic of Filhos.*

℞. Potassæ, partes ij;
Calcis, partem j.
Misce.

The caustic is fused, and run into leaden tubes like nitrate of silver. It is a convenient form for the application of a powerful caustic to uterine growths or ulcers.

677. *Lunar Caustic.*

This caustic is the nitrate of silver (*Argenti Nitras fusa*) deprived of its water of crystallization, fused and cast into moulds. Its mode of application varies with the object in view. If designed as an antiphlogistic, or as a stimulant to old ulcers, it should be passed lightly and rapidly over the affected part. If used as a caustic, it should be pressed against the surface for a few seconds. The valuable and peculiar property of this caustic is the limitation of its action to the part to which it may be applied.

678. *Burnt Alum.*

The *Alumen Exsiccatum* is made by depriving alum of its water of crystallization by heat. It is applied in powder to the fungous granulation of ulcers; and, mixed with an equal part of powdered sugar, is used to remove specks from the cornea.

679. *Chloride of Zinc.*

This is a powerful escharotic, and is safe and certain in cases that require the destruction of a considerable thickness of the living tissues; "never causing violent pain in the affected parts, or any kind of irritative fever, or disorder of the digestive organs."

"The epidermis having been removed by nitrate of silver, the chloride of zinc may be applied as a caustic, by means of a moistened hair pencil, either alone or mixed with an equal

portion of oxide of zinc, or sulphate of lime, or according to the following form:

680. *Canquoin's Caustic Paste.*

℞. Zinci Chloridi, partes ij;
Farinæ, partes iij;
Antimonii Terchloridi, partem j;
Aquæ, q. s. ut fiat pasta."

This paste should be spread thickly on the diseased part.
DUNGLISON'S *New Remedies*, 6th ed. p. 694.

681. *Caustic Paste of Chloride of Zinc.*

℞. Zinci Chloridi,
Calcis Sulphatis, āā ℥ss.
Misce.

This preparation is very liable to deliquescence, to prevent which, a little flour may be added at the time of application.

682. *Caustic Collodion.*

℞. Hydrargyri Chloridi Corrosivi, ℥j;
Collodii, ℥j.
Solve.

When this solution is applied with a camel's hair brush to the surface of nævi materni, warts, condylomata, &c., the ether evaporates and leaves a film of the caustic firmly attached to the nævus; ulceration occurs in a few days, a superficial slough separates and thus destroys the nævus, without disfigurement. MACKE.

683. *Sulphuric Acid.*

The mineral acids are all escharotic, though seldom employed, on account of the difficulty of managing fluids when used in this way.

Sulphuric acid, mixed with saffron, is proposed by Velpeau as one of the most effectual caustics. Mr. James Syme directs it to be mixed with an equal weight of sawdust to obtain a proper consistence to prevent spreading; the surrounding parts being protected by the application of a solution of gutta percha in chloroform.

Mr. Syme has also employed a saturated mixture of sulphuric acid and dried sulphate of zinc. An ordinary quill pen is charged with the mixture and drawn over the tumor in different directions, by which means the skin is soon corroded. The application is continued from day to day until the whole sloughs out.

684. *Acid Nitrate of Mercury.*

℞. Liquoris Hydrargyri Nitratis, f℥j.

This is a powerful caustic, and is much employed in England and on the Continent to destroy malignant ulcerations, particularly those of a cancerous character. It is applied by means of a camel-hair pencil, and the parts are then covered with lint.

685. *Ointment of Arsenic.*

℞. Acidi Arseniosi, ℥j;
Adipis,
Cerati Cetacei, āā ℥vj.

Signa.—Melt the cerate and lard over a slow fire, and then stir in the white oxide of arsenic, and triturate carefully in a glass mortar.

Used to destroy cancerous tumors. PHARM. CHIRURG.

In hot weather, arsenic may be advantageously rubbed up with basilicon ointment, to prevent its spreading on the sound parts. A scruple of the former, to half an ounce of the latter, makes a strong ointment.

686. *Arsenical Paste for Dentists.*

℞. Acidi Arseniosi, gr. ij;
Morphiæ Sulphatis, gr. j;
Creasoti, q. s.
Misce, fiat massa.

Used to destroy the sensibility of a carious tooth before plugging. Having cleansed the cavity, fill it with a portion of the paste, secured with a pledget of cotton or a bolus of wax. J. D. WHITE.

687. *Dubois's Arsenical Powder.*

℞. Acidi Arseniosi, ℥ss;
Hydrargyri Sulphureti Rubri, ℥j;
Sanguinis Draconis, ℥ss.
Fiat pulvis.

Chiefly used in the French hospitals as a caustic to cancerous affections.

Arsenic is sometimes applied in the form of a paste made with water, which is carefully laid over the part to be removed, and renewed according to circumstances. When the slough forms, it should be dressed with a poultice, or with cerate

spread on lint. It acts rapidly and requires watching, a remark that applies equally to all these pastes.

688. *Caustic Glycerole of Iodine.*

℞. Potassii Iodidi, partem j;
Glycerinæ, partes ij.
Solve et adde—
Iodinii, partem j.
Fiat solutio.

Employed in lupus, by painting the solution over the diseased part, and applying oiled silk or gutta percha paper to prevent evaporation. The application is attended by pain of variable intensity and duration. It has proved successful in obstinate cases, after other remedies had failed. RICHTER.

Lugol's "caustic solution of iodine" corresponds in strength with the foregoing glycerole, water being substituted for the glycerin. It has long been a favorite remedy in lupus, and in tuberculous and hypertrophied conditions of the skin.

689. *Solution of Sal Ammoniac.*

℞. Ammoniæ Muriatis, ℥j;
Aceti destillati, f℥ij;
Aquæ, f℥iv.
Fiat solutio.

To be applied to venereal warts. BELL *on Venereal.*

690. *Chromic Acid.*

This acid has lately been employed in Germany as an escharotic. It is said to be efficient, manageable, and less painful than the ordinary applications. A concentrated solution (℥j–ij in water f℥j) is applied by means of a glass rod. The solid chromic acid has to be used with care, on account of its penetrating action.

691. *Moxa.*

This is another method of using the actual cautery; and, as it is engaging the attention of physicians, we insert the usual mode of applying it. The Chinese employ this remedy by means of the mugwort. They separate this soft, lanuginous substance by beating, and form it into a cone; the base of this is attached, by being wetted, to the skin, and the point set on fire.

Dr. Boyle recommends dipping cotton in a strong solution of nitrate of potassa, and inclosing pieces of it, thoroughly

dried, in paper cylinders, about one inch in diameter, and an inch in height. Dr. Burne employs wood in a state of dry rot,—touchwood. This only requires to be shaped properly, and it burns, he says, with certainty and steadiness, and is preferable to the other modes suggested; some of which, as common cotton or lint, requiring the use of the bellows, and, when they have been dipped in nitre, demanding care to prevent the scintillations from injuring the surrounding parts.

Gun cotton, steeped in chlorate of potassa, and then thoroughly dried and formed into cylinders, has also been recommended.

The cylinders or cones of touchwood may be confined to the skin by a little adhesive plaster fixed to the edges.

It has been proposed to place pieces of cold iron in the neighborhood of the part while the moxa is burning, in order to render the sensations more vague, and therefore less painful.

Moxa is used in diseases of the spine, paralysis, &c. &c.

Sub-Class.—ISSUES AND SETONS.

These remedies are employed as substitutes for blisters, especially when a permanent discharge is desired.

There are three kinds of issues in common use, by either of which a discharge of purulent matter may be procured for any length of time that may be requisite. They are applied in different situations, according to circumstances, and some one of the following parts is generally chosen: the nape of the neck, the hollow of the deltoid muscle, and between the shoulders or over the ribs in front. In the inferior extremities they are most conveniently formed in the inside of the leg, either above or below the knee.

692. *Blister Issue.*

To form this issue, it is merely necessary to apply a blister to any part in the usual manner; the skin being thus removed, the discharge must be promoted by means of stimulating applications, as the cantharidal ointment, or the savin, or compound resin cerate. These may be alternated with mild liniments, in order to prevent the ulceration and consequent discharge from becoming excessive.

693. *The Pea Issue.*

There are two modes of forming this issue; the first is made by means of a lancet. The part is merely taken in the thumb

and finger, and an incision made by passing the lancet through the skin. The wound should be kept open by means of orange peas, the common pea, a bean, or a piece of orris root.

The second is formed with caustic potassa.

The following extracts from the *Surgeon's Vade Mecum* will exemplify the manner of forming the issue with caustic:

"The part is first to be covered with a piece of adhesive plaster, in the centre of which a circular hole has been cut of the size of the intended issue; in this hole the caustic potassa, made into a paste with soap, is to be placed. The whole is then to be covered with another plaster, secured by a bandage, and suffered to remain for *ten* or *twelve* hours. Generally, in two or three days, an eschar begins to separate, when the opening should be filled with the substance made choice of." These substances are enumerated above.

694. *The Seton.*

To form this artificial discharge, take the seton-needle, to which is attached a skein of silk, the latter being partially anointed with some oleaginous substance. The needle is to be passed completely through the part chosen for the operation, after which it is removed, and the ends of the silk left hanging from the wound. It should be dressed every day, or twice a day, with some mild ointment; and if this be not sufficient to keep up the discharge, the more stimulating unguents may be used, as mentioned when speaking of the blister issue.

CLASS XVIII.

EPISPASTICS.

"By the ancients, all the external applications which redden or inflame the skin were called *Epispastics*, and these were designated according to the several degrees of effect: the slightest, entitled *phœnigmoi;* the next, *sinapismi;* the more active, *vesicatorii;* and the strongest, *caustici.*"

At the present day, the term is restricted to those articles which produce a serous discharge beneath the cuticle,—the blister of common language.

As a general rule, blisters should remain on the patient six or eight hours, in order to insure their full effect. There are individuals, however, whose skins are so delicate that a shorter application will answer every purpose; in children, it is seldom necessary to leave them on longer than three or four hours. When they are applied to the scalp, twelve hours are almost universally required; and Dr. Chapman directs the hair to be shaved, if possible, some hours before the application is made.

The usual dressing, when the blister is taken off, is basilicon ointment, or simple cerate, according to the urgency of the case, or irritability of the system. In order to keep it open, the weak epispastic, or savin ointment, will be found sufficient.

In acute diseases, these remedies ought never to precede those means which have a tendency to reduce inflammatory action. It is generally admitted that, otherwise employed, they do harm; although there are individuals of acknowledged experience who say "they can bring the patient to the blistering point at pleasure;" and in pleurisy, and some other acute diseases, apply them soon after a free bleeding. Blisters should be placed as near the affected part as possible. In fevers, they are usually put on the inside of the forearms or legs, back of the neck, or between the shoulders.

When the system is very prostrate, they should be applied to the inside of the thighs, or over the spine; for, when the circulation is languid in the extremities, they seldom draw well, and are even liable to produce gangrene by exhausting the little vitality that remains.

When, from peculiarity of constitution, *strangury* is produced, we must take them off after three or four hours, and bathe the part with sweet oil, or apply a poultice, giving at the same time diluent drinks, such as flaxseed tea or barley water, with the sweet spirit of nitre, camphor, or parsley tea; bladders also, half filled with warm water, should be applied to the pubes. An opium suppository or injection will be found very advantageous. A poultice of ground flaxseed or starch is often serviceable, and a warm bath affords prompt relief. Prevention, however, is better than cure; and in irritable constitutions, or in persons disposed to strangury, the blistering ointment, before being spread, should be rubbed up with three or four grains of opium, and three or four times as much camphor. This preventive seldom fails. Blisters are rendered much less irritating by covering them with a fine gauze, which, if pressed in close contact with the plaster, will not prevent or materially retard its operation. It is seldom necessary to keep a blister on longer than to *redden the skin*, when a simple poultice will complete the vesication. In children this precaution is imperative.

695. *Blistering Plaster.*

℞. Cerati Cantharidis, q. s. ut fiat super alutam, emplastrum epispasticum, 6×6.

696. *Blistering Ointment.*

℞. Ceræ Flavæ,
Resinæ,
Adipis, āā ℥vj.
Liquefac cum leni calore, et adde gradatim—
Pulveris Cantharidis, ℥vijss.
Misce, et fiat unguentum.

In employing this ointment, or the preceding cerate, the margin of the blister should be covered with adhesive plaster, in order to confine it to its place, and prevent its creating unnecessary irritation. Another mode is to draw straps across it diagonally, which plan we generally prefer; it prevents the blister from rising in the middle, and thereby partially defeating its object.

697. *Instantaneous Vesication.*

The French practitioners have a process for raising an instant blister. A piece of linen or paper, being cut to the requisite size, is immersed in spirit of wine or brandy, Cologne water, oil of turpentine, or spirit of camphor, whichever is most readily obtained. It is then laid on the part to be blistered, taking care that the moisture does not wet the surrounding surface. The flame of a lighted taper is then applied quickly over the surface of the paper so as to cause ignition, which is almost instantaneous. At the conclusion of this operation, the cuticle is found detached and raised from the true skin beneath.

698. *Cantharidin.*

This substance, more or less impure, has been used during the last few years as a substitute for the common blistering cerate. The pure cantharidin is too expensive for general use, but an impure article, sufficiently concentrated for ordinary purposes, can be readily obtained. The cantharidin blistering tissues and vesicating taffetas, now offered for sale, are of this character :

699. *Cantharidal Ether or Green Oil of Flies.*

℞. Pulveris Cantharidis, partem unam ;
Ætheris, partes duas.
Macera per dies tres et exprime.

If this extract be applied undiluted twice, by means of a hair pencil, it produces, in children, free vesication in an hour or two ; and if applied three times in an adult, the same effect takes place in three or four hours. The ether evaporates, and the remaining green fixed oil operates like the cantharides in substance. OETTINGER.

700. *Blistering or Cantharidal Collodion.*

℞. Ætheris Cantharidalis (prepared as above),
Collodii, partes æquales.
Misce.

It is computed that two scruples of this collodion are equal to four drachms of common blistering plaster. It is applied by a brush two or three times over the affected part.
OETTINGER.

701. *Extract of Cantharides.*

During the winter of 1853, a simple aqueous extract of Spanish Flies, prepared by Professor Procter, was used extensively in the Pennsylvania Hospital, and found to be a most efficient substitute for the blistering cerate. The application of it for six hours raised as free a blister as the cerate did in eight.

Since the discovery, by the same gentleman, that cantharidin is soluble in oil, oleaginous extracts have been devised, thus proving the general correctness of Galen's plan of preparing an ointment by macerating the entire insect in melted lard for twenty-four hours, and then straining by expression. An oleaginous extract, prepared by digesting the powdered flies in melted lard, is a most efficient substitute for the officinal cerate.

CLASS XIX.

RUBEFACIENTS.

The substances called Rubefacients not unfrequently vesicate on very delicate skins. The term, therefore, is relative. They are employed for the same purposes as blisters, and are often good substitutes for them.

702. *Mustard Plaster.*

℞. Pulveris Sinapis Nigræ, ℥ij;
Aquæ, q. s. ut fiat cataplasma.

It is a very general practice to use vinegar in making this plaster, but if the mustard be pure, the chemical reactions, on which the irritant properties chiefly depend, are better developed with water than vinegar. In fact, a high heat, or the use of a strong acid solution, materially checks the process.

The uses of the mustard poultice are too well known to require description. It is frequently made by adding an equal quantity of wheat or rye flour; this should always be done for children, or other persons of delicate skins. It cannot generally be borne longer than half an hour or an hour.

If a mild rubefacient effect be desired, the mustard may be mixed with syrup or molasses, instead of water. When thus made, the plaster may be borne two or three hours.

703. *Garlic Cataplasm.*

The garlic cataplasm is employed with the same intention as the mustard, though much less active. It may be made by bruising the cloves of garlic, and mixing them in a common poultice of bread and milk.

704. *Onion Poultice.*

Onions are often used in cases of croup, and in diseases of the chest in children, as revulsives and antispasmodics. Having

been partially roasted, mashed, and spread between the folds of thin muslin, they are applied over the chest, and are permitted to remain as long as they retain their warmth and moisture.

705. *Cataplasm of Mustard, Pepper, and Ginger.*

℞. Sinapis Nigræ contusæ, ℔ss;
Pulveris Piperis,
Pulveris Zingiberis, āā ʒj;
Aquæ bullientis, q. s. ut fiat cataplasma.

Signa.—To be applied to the region of the stomach in severe pain or sickness, or to the soles of the feet when revulsion is required.

706. *Spice Plaster.*

℞. Pulveris Caryophylli,
Pulveris Piperis,
Pulveris Capsici,
Farinæ, āā ʒj;
Aquæ bullientis, q. s. ut fiat cataplasma.

Signa.—Let the plaster, thus prepared, be applied hot to the epigastric region.

Employed for the relief of flatulence and sick stomach.

707. *Clove Plaster.*

Quilt some powdered cloves in flannel, and wring them out in hot whiskey or alcohol. Thus prepared, they form an excellent external application in colic, and in irritability of the stomach, &c.

708. *Warming Plaster.*

℞. Picis Burgundicæ, ʒv.
Liquefac cum leni calore, et adde—
Cerati Extracti Cantharidis, ʒj.
Tere simul, et fiat emplastrum.

This plaster is very irritating, and sometimes draws a blister if the application be long continued.

709. *Mercurial Ointment, Camphor, &c.*

℞. Unguenti Hydrargyri, ʒj;
Olei Terebinthinæ,
Camphoræ, āā ʒij;
Cerati Adipis, ʒj.
Misce, et fiat unguentum secundum artem.

Used as a rubefacient over the hypochondriac region, when blisters are precluded.

710. *Tartar-emetic Plaster.*

This may be made by sprinkling the powdered tartar emetic on the surface of a Burgundy pitch or adhesive plaster, or on one made by spreading basilicon, or simple ointment, on soft leather or linen. In either way the margin should be left clean.

Tartar emetic requires a longer time to produce its effect than the ordinary blister; the irritation is of a peculiar and very painful kind, and its effects must be watched with extreme care.

711. *Tartar-emetic Ointment.*

℞. Antimonii et Potassæ Tartratis, ℥j;
Adipis, ℥j.
Tere simul.

This ointment, when applied to the skin, is a slow but certain means of exciting an eruption. The officinal formula is two drachms to the ounce, a better strength for ordinary purposes.

Dr. Kramer speaks highly of its use in acute inflammation of the tympanic membrane. It is to be rubbed over the mastoid process.

HANNAY.

712. *Lotion of Tartar-emetic and Corrosive Sublimate.*

℞. Antimonii et Potassæ Tartratis, ℥j;
Hydrargyri Chloridi Corrosivi, gr. v;
Aquæ, f℥j.
Solve, et adde—
Spiritûs Lavandulæ Compositi, f℥j.

This solution is applied by rubbing it on the part. The rubbing should be continued for five or ten minutes, and after some hours a pustular eruption will appear.—Dr. Hannay's essay, *De Tartratis Antimonii usu externo*, p. 26.

It has been used in pertussis, dyspnœa, catarrh, &c., and in the removal of incipient tumors.

It has been ascertained by the illustrious Jenner and others, that tartar emetic, employed for an undue length of time externally, will produce violent effects on the system.

We find in a note in Beck's *Medical Jurisprudence*, vol. ii, p. 283, that Dr. Francis mentions two cases wherein tartar emetic ointment, excessively used, produced effects similar to those at

times arising from the outward application of arsenic. Magendie and Brodie ascertained by experiments upon animals, that inserted into wounds its effects resemble those produced by its internal exhibition.

713. *Granville's Antidynous Lotions.*

These preparations act with great celerity. They are formed of *three ingredients*, mixed in certain proportions, according to the urgency of the case, viz.:

1. Of a saturated solution of ammonia; 2. Of the spirit of rosemary; and 3. Of spirit of camphor.

1. *The milder Ammoniated Lotion.*

℞. Aquæ Ammoniæ Fortioris, f℥j;
Spiritûs Rosmarini (*Phar.* 1850), f℥vj;
Spiritûs Camphoræ, f℥ij.
Misce.

2. *The stronger Ammoniated Lotion.*

℞. Aquæ Ammoniæ Fortioris, f℥x;
Spiritûs Rosmarini (*Phar.* 1850), f℥iv;
Spiritûs Camphoræ, f℥ij.
Misce.

The only point in which these formulas differ from the original by Dr. Granville is in the preparation of the spirit of rosemary. Our Pharmacopœia directs the oil of rosemary to be dissolved in alcohol. Dr. Granville had it prepared "by taking two lbs. of the tips or small leaves of fresh rosemary, and eight pints of alcohol, which are infused together for twenty-four hours in a covered vessel, and after adding as much water as will first prevent the empyreumatic smell, distil over *seven* pints."

As to the method of applying these counter-irritants, we shall use the words of their inventor, Dr. Granville. "First impregnate with the colorless and transparent liquid, either a piece of linen folded six or seven times to the size of the part intended to be covered, or a piece of thick and coarse flannel; and, secondly, lay either of them on the spot, pressing with the hand at the same time, very steadily and firmly, the said linen or flannel, over which there should be placed a thick towel, doubled several times, so that not only the evaporation of the lotion may be impeded, but the hand employed in pressing the application to the part may not suffer damage from any evaporation, or from contact with the liquid. In some parts of the body more

convenient than the others, the readiest and most effectual mode of pressing down the application is, by tying over it a towel or thick bandage; but to this mode there is the objection that we cannot, under certain circumstances, inspect the part as quickly and as often as required, so as to judge, from the effect of the application, when to stop, or how long to persevere in using it."[1]

When applied to the temples, forehead, jaws, or chin, great care must be taken to prevent the effluvia from affecting the eyes and nostrils. The skin should be examined in a minute or two after the application, in order to see the effect produced. When the pain is severe after the lotion is removed, simple diluent washes, and warm water, which is perhaps the best, will speedily allay it. Vesication will generally take place in from two to five minutes, and even in a minute in some persons; but where cauterization is requisite, ten or twelve minutes may be necessary. The irritated or denuded surface may be dressed, according to existing indications, with a simple poultice, tepid fomentations, cerate, or irritating ointments.

714. *Gondret's Pommade Ammoniacale.*

℞. Adipis, partes xxxij;
Olei Amygdalæ Dulcis, partes ij;
Aquæ Ammoniæ Fortioris, partes xvij.

Melt the lard, mix the oil with it, and pour them into a wide-mouthed vial with a glass stopper; then add the ammonia, close the bottle, mix the contents together by shaking, and keep the mixture in a cool place. If the skin is to be excited, perspiration to be re-established, or some subcutaneous engorgement to be dissipated, the pommade is applied by friction with the fingers. But if a rubefacient effect is desirable, spread the ointment thickly on linen, and apply it for one or two minutes. For vesication, continue the application for five or six minutes; and, by a farther continuance, absolute cauterization is speedily produced.

This, and the preceding ammoniacal preparations, are used in a great variety of diseases, and in all cases when speedy and powerful counter-irritation is demanded; as in neuralgia and rheumatic affections generally, both acute and chronic; spasms, convulsions, gout, paralysis, inflammatory diseases of internal organs, diseases of the heart, sprains, amaurosis, diseases of the eyes, &c. &c.

[1] Granville: Counter-Irritation, its Principles and Practice, p. 39.

715. *Caustic Solution of Potassa.*

℞. Potassæ, ℥jss;
Aquæ, f℥ij.
Fiat solutio.

Applied to the spine in tetanus.

Dr. Joseph Hartshorne speaks in high terms of the beneficial effect of this solution in the above disease. The best mode of applying it, so as merely to produce a rubefacient action, is to tie a piece of sponge to a stick or common table fork, and apply it from the nape of the neck to the sacrum. When the solution is strong, the effect is powerful.

716. *Concentrated Tincture of Cayenne Pepper.*

℞. Pulveris Capsici, ℥iv;
Alcoholis, f℥xij.
Macera per dies septem et cola.

This powerful rubefacient is recommended as an embrocation for toothache and neuralgic affections. A. Turnbull.

717. *Turpentine Liniment.*

℞. Olei Terebinthinæ,
Olei Olivæ, āā ℥ij;
Spiritûs Camphoræ, f℥j;
Aquæ Ammoniæ, f℥j.
Fiat linimentum.

This is a good combination, and it may be used in most cases in which a prompt rubefacient is indicated. It is an effective agent for the relief of tympanitis, whether occurring after dysentery or diarrhœa, or arising in the progress of low fevers. For this purpose it should be well rubbed over the abdomen several times daily.

718. *Liniment of Cantharides.*

℞. Pulveris Cantharidis, ℥j;
Olei Terebinthinæ, f℥viij.
Digere per horas tres in vase leviter clauso, et cola.

This liniment was first made by Dr. Jos. Hartshorne of this city, who used it with great success in typhoid fever. It is merely rubbed over the surface of the body.

S. G. Morton.

719. *Compound Liniment of Cantharides.*

℞. Camphoræ, ℥iij.
Solve in Linimenti Cantharidis, f℥ss; et adde—
Unguenti Hydrargyri,
Unguenti Adipis, āā ℥j.
Fiat linimentum.

This preparation is employed in low fever, when it is desirable to rouse the system, and at the same time affect it with mercury; also in tumors. S. G. Morton.

720. *Liniment of Croton Oil.*

℞. Olei Tiglii,
Olei Olivæ, āā ℥j.
Fiat linimentum.

Croton oil is one of our safest and most efficient rubefacients. Rubbed for a few minutes, or sometimes even for a few seconds, on the skin, it produces irritation and redness, followed in some hours by a pustular eruption. If the effect is too severe at first, it is readily counteracted by a poultice, preceded by washing with mild soap and water to remove the oil. In some persons the oil may be applied pure.

721. *Volatile Liniment.*

℞. Olei Olivæ,
Aquæ Ammoniæ, āā f℥j.
Misce.

Applied to the neck in inflammation of the throat. It is also used for sprains and bruises, and for enlarged glands.

722. *Ammoniated Soap Liniment.*

℞. Linimenti Saponis, f℥ij;
Aquæ Ammoniæ, f℥j;
Tincturæ Opii, f℥ss.
Fiat linimentum.

This may be beneficially employed in the same class of diseases as the volatile liniment.

Iodine.

Iodine is used in different forms as a rubefacient and counter-irritant. It produces local alterative effects when applied externally, and hence is much employed for the discussion of buboes, goitre, enlarged glands, and diseases of the joints. The officinal tincture is generally recommended, and is applied to the diseased part by a camel's hair pencil.

The following formulas furnish solutions of different strengths, which prove satisfactory in practice.

723. *Lugol's Rubefacient Solution.*

℞. Iodinii, ℥ss;
Potassii Iodidi, ℥j;
Aquæ, f℥vj.
Misce.

Used for touching the free margins of the eyelids and nostrils in scrofulous ophthalmia, and strumous affections of the mucous membrane. LUGOL.

724. *Iodine Paint.*

℞. Iodinii, gr. lxiv;
Potassii Iodidi, gr. xxx;
Alcoholis, f℥j.
Fiat solutio. KING'S COLLEGE HOSPITAL.

725. *Ethereal Solution of Iodine.*

℞. Ætheris, f℥j;
Potassii Iodidi, gr. xv;
Iodinii, q. s. ad saturandum.
Misce.

"It is applied in the same way as the tincture, by means of a camel's hair pencil rubbed over the part, until it begins to produce a burning sensation; then cover it with a pledget of wadding, so as to prevent evaporation." R. THOMSON.

726. *Liniment of Croton Oil and Potassa.*

℞. Olei Tiglii,
Liquoris Potassæ, āā ♏xv.
Misce, et adde—
Aquæ Rosæ, f℥j.
Fiat linimentum.

This may be rubbed on the affected part twice or three times a day, until minute pustules appear. JAMES ALLEN.

727. *Cowhage Ointment.*

℞. Mucunæ, gr. viij;
Adipis, ℥j.
Fiat unguentum.

The ointment must be rubbed in from ten to twenty minutes. The immediate effect is a sensation resembling stinging with nettles, but this passes off in less than half an hour. The skin generally becomes covered with white flat papules, which soon disappear.

It is used in the same cases as the tartar emetic, or the Croton oil liniment. BLATIN.

CLASS XX.

ANOMALOUS EXTERNAL APPLICATIONS.

It was the original intention of the author of this work to arrange all the prescriptions, whether for internal or external use, under their appropriate therapeutic heads, and a few of the earlier editions conformed, more or less, to this view. But the introduction of a great number of new remedies, the true value of which can only be determined by careful trials, has caused much difficulty in arranging them properly in that respect. This remark is particularly applicable to the host of articles used, under various forms, in the skin diseases. To remedy this, and to facilitate reference as much as possible, the Editor has added the present class, which is arranged on a pharmaceutical, rather than a therapeutical basis, and its subdivisions are named according to the form of preparation employed, viz.: Collyria, Injections, Gargles, Liniments, Ointments, Cataplasms, Baths, Fomentations, and Fumigations.

A.—COLLYRIA.

These are preparations applied to the eyes. They are sometimes dry, but generally liquid—consisting of infusions, decoctions, or distilled waters, with the addition of various medicinal substances.

POWDERS.

728. *Dry Collyrium of Oxide of Zinc and Sugar.*

℞. Sacchari,
Zinci Oxidi, āā partes æquales.
Tere in pulverem.

The ends of a quill having been cut off, a small quantity of

the powder is placed in the barrel, and is gently blown into the eye. M. Recamier.

729. *Dry Collyrium of Red Precipitate and Oxide of Zinc.*

℞. Sacchari, ℥ij ;
Hydrargyri Oxidi Rubri, gr. x ;
Zinci Oxidi, ℈j.
Fiat pulvis subtilissimus.

This, like the preceding powder, is used in opacities of the cornea, by blowing into the eye through a quill.
Dupuytren.

730. *Dry Collyrium of Opium and Calomel.*

℞. Pulveris Opii, gr. iv ;
Hydrargyri Chloridi Mitis,
Sacchari, āā ℈j.
Tere bene.

This compound is blown into the eyes for the removal of specks on the cornea resulting from inflammation.

731. *Lapis Divinus.*

℞. Aluminis,
Potassæ Nitratis,
Cupri Sulphatis, āā ℥j ;
Camphoræ, ℥ss.

The alum, nitre, and sulphate of copper are to be fused together, in a glazed earthen crucible, to drive off the water of crystallization, and the camphor is to be added near the end of the process. The cold mass is to be broken in pieces, and preserved in a closely stoppered bottle.

This article is much employed on the Continent as an eye-wash, in the strength of two grains and upwards to a fluid-ounce of distilled water.

SOLUTIONS AND MIXTURES.

732. *Alum Collyrium.*

℞. Pulveris Aluminis, gr. viij ;
Aquæ Rosæ, f℥j.
Fiat solutio.

To be applied to the eye in chronic inflammation, as well as in the purulent ophthalmia of infants.
Moorfield's Hosp. *Pharm.*

733. *Collyrium of Iodine and Iodide of Potassium.*

℞. Aquæ Rosæ, f℥vj;
Potassii Iodidi, gr. xxiv;
Iodinii, gr. ij.
Fiat collyrium.
Signa.—To be applied to the eyes three or four times in the day.

In scrofulous ophthalmia and ulcerations of the cornea and conjunctiva. It is also serviceable in removing metallic specks from the cornea, by forming a soluble iodide with the metal.

RYAN.

734. *Collyrium of Green Vitriol.*

℞. Ferri Sulphatis, gr. ij;
Aquæ, f℥j.
Fiat solutio.

Used in chronic ophthalmia.

735. *Collyrium of Subacetate of Lead and Wine of Opium.*

℞. Liquoris Plumbi Subacetatis, ♏xij;
Vini Opii, ♏xl;
Aquæ Rosæ, f℥iv.
Fiat collyrium.

This is an excellent eye-water, but it should not be used when there are ulcers on the cornea, as the lead might combine chemically with the base of the ulcer and form an indelible mark.

736. *Collyrium of Vinegar and Alcohol.*

℞. Aceti destillati, f℥j;
Alcoholis, f℥ss;
Aquæ Rosæ, f℥viij.
Fiat mistura.
Signa.—To be applied to weak eyes.

In chronic ophthalmias after depletion.

737. *Collyrium of Acetate of Zinc.*

℞. Zinci Acetatis, gr. ij;
Aquæ Rosæ, f℥j.
Fiat solutio.

This is one of the best eye-waters in common use.

It may be employed with great benefit in recent cases of

inflammation of the eyes. It should be dropped into the eye twice daily.

738. *Alum Curd.*

℞. Pulveris Aluminis, ʒss ;
Albumen unius Ovi.
Fiat coagulum.
Signa.—To be applied on a linen rag to inflamed eyes. It should be removed in three or four hours.

739. *Collyrium of Nitrate of Silver.*

℞. Argenti Nitratis, gr. j ;
Aquæ destillatæ, fʒj.
Fiat solutio.
Signa.—Used by dropping into the eye.

In acute ophthalmia, and to promote the absorption of specks upon the cornea.

740. *Collyrium of Sulphate of Cadmium.*

℞. Cadmii Sulphatis, gr. iij ;
Aquæ Rosæ, fʒij ;
Vini Opii, fʒj.
Fiat mistura.

Used for opacities of the cornea, and in chronic ophthalmia.

The quantity of sulphate of cadmium is gradually increased to four grains in an ounce. FRONMULLER.

741. *Camphorated Collyrium of Sulphate of Copper.*

℞. Cupri Sulphatis, gr. vj ;
Aquæ Camphoræ, fʒviij.
Solve.
Signa.—To be dropped into the eye.

This is nearly the same as the formula recommended by Mr. Ware in the treatment of purulent ophthalmia.

742. *Collyrium of Prussic Acid.*

℞. Acidi Hydrocyanici Diluti, fʒj ;
Aquæ destillatæ, fʒvij.
Misce.

A few drops are placed in the eye in irritable ophthalmia, as also to remove the conjunctival stains made by nitrate of silver. MOORFIELD'S HOSPITAL *Pharm.*

743. *Collyrium of Gallic Acid and Opium.*

℞. Acidi Gallici, gr. x;
Glycerinæ, ℥ij;
Extracti Opii, gr. x;
Aquæ, f℥ij.
Misce et cola.
Signa.—Apply a few drops to the eye night and morning.

This is a mild astringent lotion, useful in cases of chronic ophthalmia.

744. *Strychnia Collyrium.*

℞. Strychniæ, gr. ij;
Acidi Acetici Diluti,
Aquæ destillatæ, āā f℥j.
Fiat solutio.
Signa.—A drop or two, diluted or not according to circumstances, to be applied to the eye several times a day.

Dr. Ryan *on Amaurosis.*

745. *Collyrium of Corrosive Sublimate.*

℞. Hydrargyri Chloridi Corrosivi, gr. ij;
Aquæ destillatæ, f℥viij.
Fiat solutio.

The above may be advantageously used in gonorrhœal or scrofulous ophthalmia, as also to remove opacity of the cornea, after the subsidence of inflammation.

746. *Collyrium of Opium and Camphor.*

℞. Extracti Opii, gr. x;
Camphoræ, gr. vj;
Aquæ ferventis, f℥xij.
Tere simul et cola.

The anodyne nature of this preparation is supposed to afford some advantage over ordinary lotions, in painful affections of the eye.

747. *Conradi's Collyrium.*

℞. Hydrargyri Chloridi Corrosivi, gr. j;
Decocti Cydonii, *Lond.*, f℥j;
Aquæ Rosæ, f℥vj;
Vini Opii, f℥j.
Fiat mistura.

This collyrium is praised by most of the German oculists in cases of chronic ophthalmia.

748. *Bates's Camphorated Water.*

℞. Cupri Sulphatis,
Boli Armeniæ, āā gr. viij;
Camphoræ, gr. ij;
Aquæ bullientis, f℥viij.
Fiat infusum et cola.

This is used as a lotion in the purulent ophthalmia of infants.

749. *Collyrium of Spirit of Mindererus and Camphor Water.*

℞. Liquoris Ammoniæ Acetatis, f℥ij;
Aquæ Camphoræ, f℥vj.
Misce.
Signa.—For eyes requiring a mild astringent and stimulant application.

750. *Collyrium of Spirit of Mindererus with Opium.*

℞. Extracti Opii, gr. x;
Aquæ ferventis, f℥vj.
Solve, cola, et adde—
Liquoris Ammoniæ Acetatis, f℥ij.

Used in acute ophthalmia, when considerable pain remains after depletion.

751. *Emollient Collyrium.*

℞. Altheæ contusæ, ℥ij;
Aquæ destillatæ, Oj.
Macera per horas tres, et cola.

In inflammation of the conjunctiva accompanied with violent irritation.

752. *Collyrium of Poppies and Camphor.*

℞. Decocti Papaveris, *Lond.*, f℥iv;
Aquæ Rosæ,
Aquæ Camphoræ, āā f℥ij.
Misce.

This is adapted to the early stages of ophthalmia.

753. *Collyrium of Wine of Opium.*

℞. Vini Opii,
Aquæ destillatæ, āā f℥ss.
Misce.

This is found beneficial in rheumatic ophthalmia, when all the febrile symptoms are gone, and little more than lingering redness with weakness of the eye remains, by being dropped into the eye twice daily. MACKENZIE.

754. *Collyrium of Conia.*

℞. Coniæ, partes ij;
Alcoholis, partes xiij;
Aquæ destillatæ, partes cc.
Fiat solutio.

Employed in scrofulous ophthalmia, with intolerance of light, by rubbing it around the orbits, or dropping it in the eye several times a day.

Conia, the active principle of conium maculatum, is a virulent poison, and therefore care is requisite, even in its external use. FRONMULLER.

755. *Guthrie's Ointment.*

℞. Argenti Nitratis, gr. ij;
Liquoris Plumbi Subacetatis, ♏xv;
Unguenti Cetacei, *Lond.*, ℥j.
Fiat unguentum.

"The manner of using the ointment, is by introducing between the lids a portion, larger or smaller, as the case may seem to require, from the size of a large pin's head to that of a garden pea." GUTHRIE.

756. *Ointment of Red Precipitate and Sulphate of Zinc.*

℞. Hydrargyri Oxidi Rubri, gr. x;
Zinci Sulphatis, ℈j;
Adipis, ℥ij.
Fiat unguentum.

Recommended by Professor Dupuytren in obstinate chronic ophthalmia depending on a scrofulous diathesis.

B.—INJECTIONS.

Injections are liquid compositions of emollient, astringent, or stimulating substances. The parts into which they are thrown are the external auditory passages, the canal of the urethra, the bladder, and the vagina; and also into fistulous cavities, and into the tunica vaginalis in the case of hydrocele.

A.—FOR THE EAR.

757. *Camphorated Injection of Cajeput Oil.*

℞. Camphoræ, ʒiv;
Olei Cajuputi, fʒvij;
Olei Amygdalæ Dulcis, fʒxv.
Tere simul.

Signa.—A few drops to be dropped into the ear, in cases of dulness of hearing, from hardened wax, or dryness of the membrane. RADIUS.

758. *Goulard's Extract and Rose Water.*

℞. Liquoris Plumbi Subacetatis, fʒj;
Aquæ Rosæ, fʒj.
Misce.

Signa.—This is to be dropped into the ear until the meatus is full, and be allowed to remain there for a few minutes.

Used in otorrhœa. WILDE.

759. *Mixture with Bates's Alum Water.*

℞. Liquoris Aluminis Compositi, *Lond.*, fʒj;
Aquæ Rosæ, fʒj.
Misce.

Used in otorrhœa, in the same way as the preceding. WILDE.

760. *Mixture with Aqua Sappharina.*

℞. Liquoris Cupri Ammonio-Sulphatis, *Lond.*, fʒj;
Aquæ destillatæ, fʒj.
Misce.

Like the preceding, this is used as an astringent in otorrhœa. WILDE.

761. *Solution of Nitrate of Silver.*

℞. Argenti Nitratis, gr. x;
Aquæ destillatæ, f℥j.
Fiat solutio.

Used in simple otorrhœa by painting the meatus and membrana tympani with a fine camel's hair pencil, dipped in the solution, every second or third day; and one of the three foregoing solutions is used in the interim, night and morning.
WILDE.

762. *Another Form.*

℞. Argenti Nitratis, ℥ss;
Aquæ destillatæ, f℥j.
Fiat solutio.

This is recommended to be applied every third day to the outer half of the meatus, and adjacent portion of the concha, in chronic inflammation or thickening of the membrane lining the tympanic cavity. J. TOYNBEE.

763. *Injection of Pyroligneous Acid.*

℞. Acidi Pyrolignei, *Dub.*, f℥ij;
Aquæ destillatæ, f℥vj.
Fiat injectio.
Signa.—To be injected twice a day with a silver syringe, in purulent discharge from the ear. BUCHANAN.

764. *Injection of Catechu.*

℞. Catechu, gr. xij;
Aquæ bullientis, f℥vj.
Infunde et cola.
Signa.—To be used four or five times a day. BUCHANAN.

765. *Pyroligneous Acid, Ether, and Turpentine.*

℞. Acidi Pyrolignei, *Dub.*,
Spiritûs Ætheris Sulphurici, *Ed.*,
Olei Terebinthinæ, āā partes æquales.
Misce.
Signa.—Introduce two drops into the meatus auditorius externus every night, when the cerumen is deficient in quantity.
BUCHANAN.

766. *Mixture of Oxgall and Peruvian Balsam.*

℞. Fellis Bovini, f℥iij;
Balsami Peruviani, f℥j.
Misce.

Signa.—To be dropped occasionally into the ear to correct fetid discharges, syringing the ear every day with a weak solution of soap and water. DR. HUGH SMITH.

767. *Injection of Creasote.*

℞. Creasoti, gtt. ij;
Alcoholis, gtt. x;
Syrupi, f℥j;
Aquæ, f℥vij.
Misce.
To be used like the foregoing.

768. *Solution of Sulphate of Cadmium.*

℞. Cadmii Sulphatis, gr. viij;
Aquæ, f℥j.
Fiat solutio.

Used in otorrhœa, as an alterative and astringent to arrest the discharge. LINCKE.

B.—FOR THE URETHRA.

When injections are employed in the cure of gonorrhœa, two circumstances merit especial attention, viz., the manner of injecting them and the frequency of using them. When the common syringe is used, the pipe should be perfectly smooth, short, and conical, so that it cannot pass more than a quarter of an inch into the urethra. The patient should oil the pipe before using it, seat himself on the edge of a chair, so as to avoid pressing the perineum, draw the penis forward on the syringe with the left hand, and throw up the injection to the seat of disease (previously ascertained) with the other. As respects the frequency of injecting, it may be observed, that five or six times a day are not too often, and that the cure will be retarded by using these remedies at longer intervals. We cannot forbear remarking that gonorrhœal inflammation, situated near the extremity of the penis, can be often cured by a *routine plan;* but when seated higher up the canal, and affecting Cowper's glands or the prostate, it becomes a serious disease, the cure of which ought not to be undertaken by per-

sons ignorant of the structure of the parts and the nature of morbid action.

769. *Nitrate of Silver.*

This article is extensively used, both in gonorrhœa and gleet. Some practitioners employ a weak solution, of two or three grains to the ounce of rose-water, twice a day. Others prefer ten grains to the ounce, and employ the injection every second or third day. Another class prefer an ointment of ten or twenty grains to the ounce, and smear this over a bougie, which is then passed into the urethra. In acute gonorrhœa, either of the latter plans will frequently arrest the disease in a few days. In gleet, perhaps, the first plan is preferable.

770. *Injection of Opium.*

℞. Extracti Opii, ℈j ;
Glycerinæ, f℥j ;
Aquæ, f℥iij.
Misce.
Signa.—Use after every passage of urine.

This affords great relief to the local pain and uneasiness, and causes a diminution of the discharge in gonorrhœa.

F. J. Bumstead.

771. *Injection of Corrosive Sublimate, &c.*

℞. Zinci Sulphatis, gr. x ;
Hydrargyri Chloridi Corrosivi, gr. ij ;
Aquæ Rosæ, f℥viij.
Fiat injectio.

In gleet.

This powerful remedy should be employed with great caution.

772. *Injection of Sulphate of Zinc and Laudanum.*

℞. Zinci Sulphatis, gr. x ;
Pulveris Acaciæ, ℥ij ;
Tincturæ Opii, f℥j ;
Aquæ destillatæ, f℥viij.
Fiat injectio.

In gonorrhœa virulenta.

773. *Injection of Sulphate of Zinc and Acetate of Lead.*

℞. Zinci Sulphatis,
Plumbi Acetatis, āā gr. xx ;
Aquæ Rosæ, f℥iv.
Misce.
Signa.—Shake the bottle before using.

Although mutual decomposition of the salts takes place, the resulting mixture forms an excellent injection for gonorrhœa.
RICORD.

774. *Injection of Muriate of Ammonia, &c.*

℞. Ammoniæ Muriatis, gr. j;
Hydrargyri Chloridi Corrosivi, gr. ij;
Aquæ destillatæ, f℥iv.
Fiat injectio.

In chronic gonorrhœa.

775. *Injection of Acetate of Zinc.*

℞. Zinci Acetatis, gr. viij;
Aquæ Rosæ, f℥iv.
Fiat injectio.

In gonorrhœa virulenta.

For all these preparations, rose-water is an admirable menstruum; it possesses the advantages of being slightly astringent and rendered pure by distillation, and is therefore particularly applicable to the formation of injections and collyria.

776. *Injection of Chloride of Zinc.*

℞. Zinci Chloridi, gr. j;
Aquæ, f℥j.
Fiat solutio.

This injection has been used in St. Bartholomew's Hospital, London, with much success, by Mr. Lloyd, in cases of gonorrhœa. Mr. Weeden Cooke recommends the simultaneous employment of the alkaline carbonates internally.

777. *Injection of Monsel's Salt.*

℞. Liquoris Ferri Subsulphatis, f℥ss;
Aquæ, f℥vj.
Solve.
Signa.—Use for an injection.

Recommended in gleet. BUMSTEAD.

778. *Injection of Sulphate of Iron.*

℞. Ferri Sulphatis, gr. viij;
Aquæ, f℥j.
Fiat solutio.

Used in gleet.

779. *Injection of Iodide of Iron.*

℞. Ferri Iodidi, ℥ss ;
Aquæ, f℥viij.
Fiat solutio.

Used in blennorrhœa. RICORD.

780. *Injection of Sulphate of Quinia.*

℞. Quiniæ Sulphatis, gr. viij ;
Aquæ, f℥j ;
Acidi Sulphurici Diluti, q. s. ut fiat solutio.

Used in gonorrhœa. GODDARD.

781. *Injection of Chlorate of Potassa.*

℞. Potassæ Chloratis, ℥ss ;
Aquæ, f℥v.
Fiat solutio.

This has been used in a number of cases of gonorrhœa, speedily effecting a cure. A. S. PALMER.

782. *Injection of Armenian Bole, &c.*

℞. Zinci Sulphatis, ℈j ;
Boli Armeniæ, ℈ij ;
Pulveris Acaciæ, ℥ij ;
Aquæ Rosæ, f℥viij.
Fiat injectio.

In gonorrhœa.

783. *Injection of Calomel, &c.*

℞. Hydrargyri Chloridi Mitis, ℥j ;
Acaciæ, ℥ij ;
Tincturæ Opii, f℥ss ;
Aquæ, f℥viij.
Fiat injectio.

For gonorrhœa or gleet.

784. *Injection of Sulphate of Copper.*

℞. Cupri Sulphatis, gr. vj ;
Aquæ destillatæ, f℥vj ;
Tincturæ Opii, f℥j.
Fiat solutio.

To be thrown up the urethra in chronic gonorrhœa.

785. *Injection of Yellow Root (Hydrastis Canadensis).*

℞. Radicis Hydrastidis contusæ, ℥j ;
Aquæ bullientis, Oj.
Macera per horas duas, et cola.
Signa.—Inject an ounce three times daily.

Dr. D. M. McCann, of Martinsburg, recommends highly this injection in gonorrhœa.

Dr. U. E. Ewing also speaks favorably of it; but he directs a drachm of sulphate of copper to be dissolved in the infusion.

786. *Injection of Tea.*

℞. Folii Theæ Viridis, ℥j ;
Aquæ ferventis, f℥vj.
Fiat infusum et cola.

For an injection in gonorrhœa virulenta.

787. *Injection of Copaiba.*

℞. Copaibæ, ℥v ;
Vitellum unius Ovi ;
Extracti Opii, gr. j.
Tere simul, et adde gradatim—
Aquæ, f℥vij.
Misce.
Signa.—Inject a portion several times daily.

This is an efficacious mode of treating gonorrhœa.

DALLAS.

788. *Injection of Ammoniated Copper.*

℞. Cupri Ammoniati, gr. v ;
Aquæ Rosæ, f℥viij.
Fiat solutio.

In chronic gonorrhœa.

789. *Solution of Tannin.*

℞. Acidi Tannici, gr. xxxij ;
Aquæ destillatæ, f℥viij.
Solve.

Employed as a wash to chronic ulcers, and as an injection in obstinate blennorrhœa.—BERAL, *in* DUNGLISON'S *New Remedies*, 6th ed. p. 45.

790. *Injection of Strychnia.*

℞. Strychniæ, gr. j;
Acidi Nitrici, ♏ij;
Aquæ, f℥j.
Fiat solutio.
Signa.—Inject a drachm three times a day after urination.

Used in gleet. JOHNSON.

C.—VAGINAL INJECTIONS.

791. *Injection of Permanganate of Potassa.*

℞. Potassæ Permanganatis, gr. xx;
Aquæ, Oj.
Solve.

Used in cancer of the womb for its alterant and deodorant effect, a small quantity being injected several times daily.
D. F. GIRWOOD.

792. *Injection of Creasote.*

℞. Creasoti, ♏xij;
Mucilaginis Tragacanthæ, ℥ij;
Aquæ ferventis, f℥xiv.
Fiat mistura.

Recommended for the removal of the fetid and vitiated secretions from the maternal passages in puerperal fever. Warm water is thrown up to wash out the vagina, and the injection is then used. It is employed in the same way for cancer of the womb. MACKENZIE.

793. *Injection of Labarraque's Solution.*

℞. Liquoris Sodæ Chlorinatæ, f℥j;
Aquæ, f℥x.
Misce.

Prescribed as a vaginal wash in cases of infection, produced by the decomposition of a retained placenta. TROUSSEAU.

794. *Injection of Mustard.*

℞. Pulveris Sinapis Albæ, ℥ij;
Aquæ ferventis, Oj.
Misce.
Signa.—Inject a third part three times daily.

Useful in amenorrhœa. S. ASHWELL.

795. *Vaginal Pessary of Tannic Acid.*

℞. Ceræ Albæ, ℈v.
Liquefac cum leni calore, et adde—
Adipis. ʒvj;
Acidi Tannici. ℈ij.
Tere bene et divide in pessos iv.

Used in leucorrhœa and gonorrhœa of females.

SIMPSON.

796. *Vaginal Pessary of Alum and Catechu.*

℞. Olei Theobromæ, ʒij;
Aluminis,
Pulveris Catechu, āā ʒj.
Misce secundum artem et divide in pessos vj.

Useful in chronic vaginitis and leucorrhœa.

INOCULATION AND SUBCUTANEOUS INJECTION OF MEDICINES.

INOCULATION.—The introduction of medicines into the skin by inoculation was proposed in 1836 by M. Lafargue, and has since been practised by M. Solon and M. Langenbeck. The latter has tried a number of experiments, whereby the value of this mode of medication has been fully proved. Inoculation is effected by making a number of punctures with a small lancet through the skin—including both the epidermis and the dermis,—and rubbing the medicine, previously dissolved in the smallest possible quantity of fluid, into the punctured part. Some local irritation follows the operation. In this way, solutions of morphia, strychnia, quinia, iodine, corrosive sublimate, and of the various narcotic extracts, have been employed with much success. The quantity of medicament used is about double of what would be administered by the mouth. Inoculation has proved effectual in sciatica, neuralgia, and local pains: but it has not, however, attracted much attention from practical physicians.

SUBCUTANEOUS INJECTION of medicines is more efficacious than inoculation, as in this way remedies can be more readily and certainly introduced. The operation is performed by means of a syringe capable of holding a fluidrachm, and having its perforated nozzle drawn to a point, by which the skin can be penetrated by a gentle rotary motion. Or a delicate trocar

and canula may be used. The trocar having been withdrawn, the injection is made by a syringe through the canula. After the operation there are usually some swelling, tenderness, or pain, and a diffused redness of the skin. These local phenomena soon pass away, and the symptoms characteristic of the medicine are manifested on the system. No unpleasant local results need be anticipated, unless the quantity employed be large, or the remedy be of an acrimonious character. In all cases, strong solutions are used, with a view of combining efficiency with smallness of bulk.

Saturated solutions of tannin, and of the peracetate, perchloride, and persulphate of iron, have been injected for the destruction of nævi and small aneurisms.

Dr. Alexander Wood, of Edinburgh, reported nine cases of neuralgia, in 1855, treated by injections of a strong solution of opium, over the seat of pain. In all relief was afforded, and in most a cure was effected.

Dr. Horatio R. Storer injected, successfully, ten drops of a solution of the bimeconate of morphia (bimeconate, grs. x, alcohol, f℥j, and water, f℥xiij), beneath the mucous membrane of the gum for the relief of toothache in pregnant women. Dr. Scanzoni speaks favorably of the same preparation for neuralgia, and even for puerperal convulsions.

Mr. Charles Hunter, of London, employed concentrated solutions of the acetate of morphia in cases of chorea, tic douloureux, delirium tremens, and hemicrania. The doses ranged from a half to three-fourths of a grain of the acetate. In every instance the peculiar effects of morphia were soon manifested.

Drs. Courty and Cowdell report, severally, the injection of atropia, or its sulphate, in doses ranging from one-thirty-third to one-eighth of a grain in asthma, sciatica, and severe neuralgias. If the atropia be pure, these quantities are too large for ordinary use.

Dr. Ignatius Langer, of Iowa, refers to twenty-three cases of intermittent fever cured by injections of sulphate of quinia. "He administered a solution of two to ten grains of sulphate of quinia in fifteen to thirty grains of water (with an addition of two to six drops of diluted sulphuric acid), according to age, constitution, duration of disease, and former treatment."

D.—GARGLES AND MOUTH WASHES.

Gargles, like injections, are astringent and stimulating; and to be of any service must be frequently applied, and persevered in for some time.

797. *Gargle of Brandy.*

℞. Spiritûs Vini Gallici,
Aquæ, āā partes æquales.

Brandy and water form an excellent gargle for some cases of inflamed fauces.

798. *Gargle of White Oak Bark and Alum.*

℞. Quercûs Albæ contusæ, ℥j;
Aquæ, Ojss.
Coque ad Oj, cola, et adde—
Aluminis, ℥ss;
Spiritûs Vini Gallici, f℥ij.
Misce.

Used in sore throat and chronic ulceration of the fauces.

799. *Gargle of Sulphate of Quinia, &c.*

℞. Quiniæ Sulphatis, gr. xij;
Cupri Sulphatis, gr. xvj;
Acidi Sulphurici Aromatici, f℥j;
Aquæ f℥viij.
Fiat mistura.
Signa.—To be used three or four times a day in obstinate sore throat. Jos. Hartshorne.

800. *Gargle of Borax and Myrrh.*

℞. Sodæ Boratis, ℥j;
Tincturæ Myrrhæ, f℥ss;
Mellis despumati, f℥j;
Aquæ Rosæ, f℥iv.
Fiat gargarysma.

To be used as a gargle or mouth wash, in ptyalism or scorbutic affections of the gums.

801. *Gargle of Sulphate of Zinc, &c.*

℞. Zinci Sulphatis, ℥j;
Mellis, f℥ss;
Tincturæ Myrrhæ, f℥j;
Spiritûs Vini Gallici, f℥j;
Aquæ Rosæ, f℥vj.
Fiat gargarysma.

To be applied to ulcerated gums, occasioned by excessive salivation. Water can be added if it be too strong.

802. *Dr. Blake's Toothache Solution.*

℞. Aluminis (in pulverem subtilissimum triturandi), ℥ij;
Spiritûs Ætheris Nitrosi, f℥vij.
Fiat mistura.

Said by Dr. Blake, of London, to be an infallible cure for *toothache*, when not connected with rheumatism.

803. *Gargle of Alum.*

℞. Aluminis, ℥ij;
Aquæ, f℥iv.
Solve.

This is Dr. Cavarra's gargle for *fœtor oris*, or offensive breath.

804. *Gargle of Pomegranate and Alum.*

℞. Granati Fructûs Corticis, ℥ss;
Rosæ Gallicæ, ℥ij;
Aquæ bullientis, f℥vj.
Fiat infusum. Cola et adde—
Mellis despumati, f℥j;
Aluminis, ℥ij.
Fiat gargarysma.

For inflammation of the throat and fauces.

805. *Gargle of Rhatany.*

℞. Pulveris Krameriæ,
Pulveris Cinnamomi, āā ℥j;
Aquæ bullientis, f℥vij.
Macera per horas duas, cola, et adde—
Sacchari, ℥ij.
Fiat gargarysma.

A valuable astringent gargle in ordinary sore throat.

806. *Muriatic Acid and Peruvian Bark Gargle.*

℞. Infusi Cinchonæ Rubræ. f℥iv:
Mellis despumati. f℥j:
Acidi Muriatici. ♏x.
Fiat gargarysma.

In chronic inflammation, when the pain and swelling have been reduced by depletion. RATIER's *Formulary.*

807. *Detergent Gargle of Sulphuric Acid, &c.*

℞. Decocti Hordei. f℥iv:
Mellis despumati. f℥ss:
Acidi Sulphurici. ♏x.
Fiat gargarysma. RATIER.

808. *Mercurial Gargle.*

℞. Hydrargyri Chloridi Corrosivi. gr. j:
Mellis despumati. f℥ss:
Aquæ destillatæ. f℥iv.
Fiat solutio.

For venereal sore throat. RATIER.

809. *Sal Ammoniac and Acetic Acid Gargle.*

℞. Acidi Acetici. f℥ij:
Ammoniæ Muriatis. ℥j:
Mellis. f℥jss:
Aquæ. f℥xij.
Fiat gargarysma.

For inflamed fauces. RATIER.

810. *Gargle of Acetate of Lead.*

℞. Plumbi Acetatis. ℥ss;
Syrupi. f℥j:
Decocti Hordei. Oj.
Fiat solutio.

In mercurial sore mouth, &c. RATIER.

811. *Chloride of Lime Gargle.*

℞. Calcis Chlorinatæ. ℥ij:
Aquæ. Oj.
Solve et cola. Dein adde—
Mellis. f℥j.
Misce.

Used in ulceration of the mouth and throat.

812. *Disinfecting Mouth Wash.*

℞. Calcis Chlorinatæ, ℥iij;
Aquæ destillatæ, f℥ij.
Tere simul et filtra. Dein adde—
Olei Rosæ, ♏v;
Alcoholis, f℥ij;
Mellis Rosæ, f℥ss.
Misce.

Used in mercurial sore mouth.

813. *Cayenne Pepper Gargle.*

℞. Tincturæ Capsici, f℥ss;
Aquæ Rosæ, f℥viij.
Misce.

A stimulating gargle used in scarlet fever. GRIFFITHS.

814. *Mel Ægyptiacum.*

℞. Linimenti Æruginis, *Lond.*, f℥j.

This is applied with a brush to venereal ulcers of the throat. Diluted with water (one drachm to the ounce), it forms a detergent gargle.

815. *Gargle with Iodine and Opium.*

℞. Tincturæ Iodinii,
Tincturæ Opii, āā f℥j;
Aquæ, f℥vj.
Fiat gargarysma.
Signa.—To be well shaken when used.

This is employed three or four times daily in ulcerated sore throat.

816. *Lotion of Iodide of Zinc.*

℞. Zinci Iodidi, gr. x;
Aquæ destillatæ, f℥j.
Fiat solutio.

Applied daily to enlarged tonsils, by a piece of sponge tied to a quill. J. J. Ross.

817. *Mixture of Sulphuric Acid and Honey.*

℞. Acidi Sulphurici, f℥ss;
Mellis, f℥j.
Fiat linimentum.

Used for aphthæ, by touching the ulcerated surfaces frequently with a soft pencil.

818. *Wash of Sulphate of Copper, &c.*

℞. Cupri Sulphatis, ʒij;
Pulveris Cinchonæ Pallidæ, ℥ss;
Aquæ destillatæ, f℥iv.
Misce.

Signa.—In the gangrenous sore mouth of children, applied to the full extent of the ulceration and excoriation.

B. H. Coates.

Sulphate of zinc is often employed in like doses in this affection.

819. *Gargle of Alum, Sage Tea, and Honey.*

℞. Salviæ, ℥ss;
Aquæ bullientis, Oss.
Fiat infusum, et cola. Dein adde—
Aluminis, ℥ss;
Mellis, f℥j.
Fiat mistura.

This domestic remedy is very effectual in cases of sore throat.

820. *Lotion of Muriatic Acid, &c.*

℞. Acidi Muriatici, f℥ss;
Mellis,
Aquæ Rosæ, āā f℥j.
Misce.

Signa.—To be applied with a brush to scorbutic gums three or four times a day.

E.—LINIMENTS, LOTIONS, ETC.

821. *Lotion of Lime-water, Zinc, &c.*

℞. Zinci Oxidi, gr. xij;
Cupri Sulphatis, gr. iij;
Mellis, f℥j;
Liquoris Calcis, f℥ij.
Fiat lotio.

Signa.—To be applied to phagedenic ulcers of the genitals.

Vide Swediaur *on Syphilis.*

822. *Liniment of Lime-water and Linseed Oil (Carron Oil).*

℞. Olei Lini, f℥iij;
Liquoris Calcis, f℥vj.
Fiat linimentum.
Signa.—To be applied to burns and scalds by means of a feather or soft rag.

823. *Gum and Molasses Mixture.*

℞. Pulveris Acaciæ, ℥iij;
Pulveris Tragacanthæ, ℥j.
Tere simul, et adde gradatim—
Aquæ, f℥x;
Syrupi Fusci, f℥ij.
Misce.
Signa.—Apply over the burnt surface.

Dr. T. H. Bache furnishes this, as the formula used in the Pennsylvania Hospital. By some of the surgeons this mixture is highly prized in the treatment of burns and extensive scalds.

824. *Lotion of Permanganate of Potassa.*

℞. Potassæ Permanganatis, ℥ss;
Aquæ, Oj.
Solve.

Under the name of "Condy's Fluid" a solution of the permanganate has been extensively employed in the London hospitals in cases of burns, ulcers, and extensive suppurating surfaces, with relief to the pain and a total prevention of any fœtor.

825. *Liquid Deodorant.*

℞. Spiritûs Camphoræ,
Tincturæ Myrrhæ, āā f℥iij;
Linimenti Saponis, f℥ij;
Acidi Acetici Glacialis, ♏xx;
Olei Picis Liquidæ, f℥j.
Misce.

This preparation, properly diluted, is an excellent application to sloughing or gangrenous parts, in consequence of its deodorizing properties. It is also of service in cases of diarrhœa or dysentery, for purifying the air of the chamber. A teaspoonful added to each liquid stool is sufficient to remove the odor, especially if a towel moistened with the lotion be waved for a few moments in the room. T. Skinner.

826. *Lotion of Goulard's Extract and Camphor.*

℞. Liquoris Plumbi Subacetatis, f℥j;
Spiritûs Camphoræ, f℥iij;
Aquæ, Oj.
Fiat lotio.

This compound is much recommended by some of the French surgeons. Applied by means of lint to old ulcers and burns.

827. *Another Form.*

℞. Confectionis Rosæ, ℥j;
Mellis,
Liquoris Plumbi Subacetatis, āā f℥ss;
Tincturæ Opii, ♏xl.
Misce.
Signa.—Applied to painful venereal ulcers, and to chancres after the use of lunar caustic.

828. *Lotion of Chloride of Zinc.*

℞. Zinci Chloridi, gr. ij;
Aquæ destillatæ, f℥j.
Misce.
Signa.—Applied on lint to chronic and indolent ulcers.

HANCKE.

829. *Lotion of Sulphuret of Potassium.*

℞. Potassii Sulphureti, ℥ij;
Aquæ, Oj.
Solve.

This lotion proves almost magical in its effects in cases of pityriasis. It may be applied with a brush or sponge.

J. NEILL.

830. *Lotion of Sulphuret of Potassium, Lime-water, &c.*

℞. Potassii Sulphureti, ℥ss;
Saponis, ℥j;
Alcoholis, f℥iv;
Tincturæ Myrrhæ, f℥ss;
Liquoris Calcis, Oj.
Fiat mistura secundum artem.
Signa.—To be applied to the head night and morning, in tinea capitis. The hair must be shaved previous to its employment.

831. *Lotion of Phosphoric Acid.*

℞. Acidi Phosphorici Glacialis, ℥j;
Aquæ destillatæ, f℥viij.
Fiat solutio.

Dr. Lentin, a German physician, has employed this solution on compresses applied to ulcers situated over carious bones.—SPILLAN'S *Supplement to the British Pharmacopœias.*

832. *Lotion of Corrosive Sublimate, &c.*

℞. Hydrargyri Chloridi Corrosivi, ℥j;
Aquæ, f℥vj.
Solve et adde—
Ammoniæ Muriatis, ℥ij;
Potassæ Nitratis, ℥ss.
Fiat lotio.

Principally used as a wash in itch.

GOOD'S *Study of Med.*, vol. iv.

833. *Yellow Wash.*

℞. Hydrargyri Chloridi Corrosivi, gr. j;
Liquoris Calcis, f℥j.
Fiat solutio.

For ordinary purposes, one grain to the ounce will be sufficient.

In phagedenic and venereal ulcers.

834. *Black Wash.*

℞. Hydrargyri Chloridi Mitis, ℥j;
Liquoris Calcis, f℥iv.
Misce.
Signa.—The bottle to be well shaken before using.

This prescription is used in the same cases as the other. The red oxide in that, and the black oxide of mercury in this, are precipitated by the lime-water. They are sometimes administered in the form of injections in gleet and gonorrhœa.

835. *Lotion of Cyanide of Potassium.*

℞. Potassii Cyanidi, gr. xij;
Misturæ Amygdalæ, f℥vj.
Fiat lotio.

In lichen, and other chronic eruptions.

836. *Liniment of Chlorine.*

℞. Aquæ Chlorinii, f℥j ;
Olei Olivæ, f℥j.
Fiat linimentum.

Applied externally to itch, herpes, and tinea capitis.
DUNGLISON'S *New Remedies*, 6th ed. p. 195.

837. *Iodine Liniment.*

℞. Linimenti Saponis, f℥j ;
Tincturæ Iodinii, f℥j.
Misce.

838. *Creasote Liniment.*

℞. Creasoti, ♏x ;
Olei Olivæ, f℥j.
Fiat linimentum.

In herpes, &c.

839. *Creasote Lotion.*

℞. Creasoti, ♏x ;
Aceti, f℥ij ;
Aquæ destillatæ, f℥ij.
Fiat lotio.

Applied in phagedenic ulceration.

840. *Camphorated Oil.*

℞. Camphoræ, ℥j ;
Olei Olivæ, f℥iv.
Fiat solutio ; tunc adde—
Olei Terebinthinæ, f℥jss.
Misce.
Signa.—To be applied by rubbing with a piece of flannel.

Used in deep-seated rheumatic pains.

841. *Stokes's Liniment.—Linimentum Album.*

℞. Olei Terebinthinæ, f℥iij ;
Olei Limonis, f℥j.
Misce et adde, secundum artem—
Vitellum unius Ovi ;
Aquæ Rosæ, f℥iij ;
Acidi Acetici, f℥ss.
Tere simul.

A stimulating liniment having been much prescribed in Baltimore under the above name, the College of Pharmacy of that city has adopted this formula. It is an efficient preparation.

842. *Liniment of Cantharides and Camphor.*

℞. Tincturæ Cantharidis, f℥iv ;
Camphoræ, ℥ss.
Misce.
Signa.—To be rubbed on the parts affected.

In paralysis.

843. *Liniment of Camphor, Carbonate of Ammonia, Amber, &c.*

℞. Spiritûs Camphoræ, f℥iv ;
Ammoniæ Carbonatis, ℥ss ;
Olei Juniperi,
Olei Succini, āā f℥ij.
Misce.

To be employed in like manner, and in the same cases as the former.

844. *Liniment of Camphor and Acetic Acid.*

℞. Spiritûs Camphoræ, f℥iij ;
Acidi Acetici, f℥j.
Fiat embrocatio.

To be applied to bruises, rheumatic parts, &c.

845. *Liniment with Ammonia and Olive Oil; vulgo, Volatile Liniment.*

℞. Olei Olivæ,
Aquæ Ammoniæ, āā f℥j.
Misce.

Applied to the neck in inflammation of the throat.

846. *Liniment of Ammonia and Tartarized Antimony.*

℞. Linimenti Ammoniæ, f℥j ;
Antimonii et Potassæ Tartratis, ℥j.
Misce.

Applied to indolent tumors, and other swellings.

847. *Liniment of Oil of Amber, &c.*

℞. Olei Succini, f℥ij ;
Olei Olivæ, f℥ss ;
Tincturæ Opii, f℥ij ;
Spiritûs Vini Gallici, f℥iij.
Fiat linimentum.
Signa.—To be rubbed between the shoulders.

In pertussis.

848. *Liniment of Oils of Cloves, Amber, and Olives.*

℞. Olei Caryophylli,
Olei Succini rectificati, āā ℥ss ;
Olei Olivæ, ℥j.
Tere simul.

Used as an embrocation in hooping-cough. ROCHE.

849. *Liniment with Nux Vomica.*

℞. Tincturæ Nucis Vomicæ, f℥j ;
Aquæ Ammoniæ, f℥ij.
Misce.

This is applied by friction, in paralytic and nervous diseases. MAGENDIE.

850. *Anti-psoric Lotion of Dupuytren.*

℞. Potassii Sulphureti, ℥iv ;
Aquæ, Oj ;
Acidi Sulphurici Diluti, f℥iv.
Misce.
Signa.—To be applied two or three times a day on the parts covered with pustules, and with this treatment the simple bath is conjoined.

851. *Compound Opiate Liniment.*

℞. Tincturæ Opii,
Spiritûs Ætheris Sulphurici, *Ed.;*
Spiritûs Camphoræ, āā f℥ij.
Fiat embrocatio.
Signa.—To be applied to rheumatic parts.

Also, in odontalgia, pain in the region of the ear, &c.

852. *Another Form.*

℞. Tincturæ Opii,
Spiritûs Camphoræ,
Tincturæ Cantharidis,
Ætheris, āā f℥ss.
Fiat embrocatio.

Useful in intercostal and other pains. S. Ashwell.

853. *Liniment of Opium, Subacetate of Lead, &c.*

℞. Olei Olivæ, f℥ij;
Tincturæ Opii, f℥ij;
Liquoris Plumbi Subacetatis, f℥ss.
Misce.

854. *Compound Chloroform Liniment.*

℞. Chloroformi,
Ætheris,
Spiritûs Camphoræ,
Tincturæ Opii, āā f℥j;
Tincturæ Capsici, f℥ss.
Misce.

This forms an excellent embrocation for rheumatic pains, sprains, &c.

855. *Liniment of Petroleum, Camphor, &c.*

℞. Petrolei Barbadensis, f℥j;
Camphoræ, ℥ss;
Alcoholis, ♏xl.
Fiat linimentum.
Powder the camphor by adding the spirit, and then mix the whole in a mortar.

Glycerin.

This principle, which is demulcent and antiseptic, forms a very useful addition to lotions and gargles. It has been used extensively by Mr. Startin, surgeon to the London Cutaneous Institution, and he has published several formulas for its employment. Two of them are subjoined, viz.:

856. *Lotion of Borax and Glycerin.*

℞. Sodæ Boratis, ℥ss;
Aquæ Rosæ, f℥vijss;
Glycerinæ, f℥ss;
Fiat mistura.

Used for chapped hands, fissures of the lips, sore nipples, and irritation of the skin of any kind. STARTIN.

857. *Lotion of Ammonia, Glycerin, &c.*

℞. Spiritûs Ammoniæ Aromatici, f℥j;
Glycerinæ, f℥ss;
Tincturæ Cantharidis, f℥j;
[1]Aquæ Rosmarini, f℥vij.
Misce.
Signa.—To be used with a wet hair-brush once or twice a day.

Employed for alopecia following fevers, or for falling off of the hair, dryness or want of action of the scalp, thinness of the hair, &c. STARTIN.

858. *Glycerin Lotion.*

℞. Glycerinæ, f℥ij;
Aquæ Rosæ, f℥ij.
Misce.

This is an emollient and soothing lotion, useful in erythema, chaps, excoriations, &c.—*Druggists' Circular.*

859. *Lotion of Morphia and Glycerin.*

℞. Morphiæ Acetatis, gr. iij;
Glycerinæ, f℥j.
Solve.

This is an elegant mode of preparing an anodyne lotion, the quantity of the salt varying with the indications of the case. The salts of nearly all of the alkaloids are soluble in glycerin, but the bases, or pure alkaloids, are insoluble in this fluid.

860. *Lotion of Lead-water and Glycerin.*

℞. Liquoris Plumbi Subacetatis, f℥j;
Glycerinæ, f℥iij;
Aquæ, f℥vijss.
Fiat solutio.

This forms an astringent and sedative lotion, which is valuable in the treatment of many of the skin diseases.—*Lond. Hosp. for Skin Diseases.*

[1] When aromatic waters are prescribed which are not officinal, the compounder can readily prepare them by rubbing two drops of the essential oil with a few grains of carbonate of magnesia and a fluidounce of water, and then filtering the solution through bibulous paper.

861. *Lotion of Tannin and Glycerin.*

℞. Acidi Tannici, gr. xv;
Glycerinæ, f℥j.
Solve.

Used for sore nipples, by applying it to the part with a brush, or on lint covered with oiled silk. Some practitioners prefer a stronger solution, consisting of equal parts, by weight, of tannin and glycerin.

862. *Lotion of Green Vitriol.*

℞. Ferri Sulphatis, ℥j;
Aquæ, Oj.
Fiat lotio.

Used in erysipelas, by applying it to the part every two or three hours. VELPEAU.

863. *Lotion of Borax and Morphia.*

℞. Sodæ Boratis, ℥ss;
Morphiæ Sulphatis, gr. vj;
Aquæ Rosæ, f℥viij.
Fiat lotio.

Used in pruritus vulvæ.

Wash the surfaces with soap and tepid water, and dry them before applying the lotion, which is to be done three times daily. C. D. MEIGS.

864. *Lotion of Sulphite of Soda, &c.*

℞. Sodæ Sulphitis,
Aluminæ Sulphatis, āā ℥j;
Aquæ Rosæ, f℥vijss.
Fiat lotio.
To the above a tablespoonful of some flavoring ingredient, as the Eau de Cologne, may be added.

Used in acne by washing the part with a linen rag dipped in the solution twice or thrice a day. STARTIN.

865. *Substitute for Aromatic Wine.*

℞. Vini Rubelli (*Claret Wine*),
Spiritûs Lavandulæ Compositi, āā f℥v;
Tincturæ Opii, f℥ss;
Aquæ, f℥iijss;
Acidi Tannici, ℥ij.
Misce.

The aromatic wine of the Paris Codex is employed by Ricord and others as a stimulating lotion to buboes and chancres, and when diluted as an injection in leucorrhœa and gonorrhœa. The above is an efficient substitute for the original complex formula, and may be employed in similar cases.

F. J. BUMSTEAD.

F.—OINTMENTS.

Ointments are usually prepared by rubbing together the medicinal agent and a sufficient quantity of lard to give a smooth uniform consistence. If intended for immediate use, no better excipient than lard can be found. But if kept on hand for some time, an ointment, thus made, becomes rancid or acrid. To prevent this chemical change, a number of plans have been proposed, the following among others:

866. *Benzinated or Benzoated Lard,*

As an excipient, is used instead of pure lard. It is prepared by digesting at a moderate heat two drachms of powdered benzoin with a pound of lard. E. MOUCHON.

867. *Plasma,*

Is the name applied to a mixture of seventy grains of starch and a fluidounce of glycerin. These articles are mixed and gradually heated to 240° F., constantly stirring. This mixture is used as a basis for ointments. It dissolves most materials which are soluble in water, and it can be washed readily from tender surfaces. G. F. SHACHT.

Mr. Startin's formula for a similar preparation is:

℞. Tragacanthæ electæ, ℥ss;
Glycerinæ, f℥j;
Liquoris Calcis, f℥ij;
Aquæ Rosæ, q. s. ut fiat gelatina.
Misce.

This jelly is employed both as a basis for ointments and as an emollient application in various skin diseases.

868. *Ointment of Red Precipitate.*

℞. Hydrargyri Oxidi Rubri, ℥j;
Terebinthinæ Venetæ, ℥j.
Misce.

This preparation is applied to indolent sores, and is thought by some practitioners to be a specific in itch.

869. *Iodine Ointment.*

℞. Iodinii, gr. iij;
Adipis, ʒij.
Fiat unguentum.

Used in enlargements, painful joints, nodes, &c.

870. *Iodine and Collodion.*

℞. Iodinii,
Terebinthinæ Canadensis, āā ʒj;
Collodii, fʒiv.
Solve.
Signa.—Paint over the diseased part with a brush.

This preparation has proved very efficient in the discussion of tumors, swellings, painful joints, &c. It acts as a rubefacient, and even as a vesicant if the skin is tender.

J. T. Shinn.

871. *Ointment of Iodide of Potassium.*

℞. Potassii Iodidi, ℈j;
Cerati Adipis, ʒj.
Fiat ceratum.

Applied to scrofulous swellings when the skin is unbroken. It may also be used for tetter, and kindred eruptions.

872. *Lugol's Ointment of Ioduretted Iodide of Potassium.*

℞. Iodinii, gr. xij;
Potassii Iodidi, ℈iv;
Adipis, ʒij.
Fiat unguentum.

Used in scrofulous ophthalmia, ulcers, &c.

873. *Ointment of Iodide of Zinc.*

℞. Zinci Iodidi, ʒj;
Adipis, ʒj.
Fiat unguentum.

Signa.—A drachm to be rubbed on twice a day.
In tumors.

Dr. Ure recommends the above as a substitute for the ointment of iodide of potassium in glandular swellings.

874. *Ointment of Iodide of Barium.*

℞. Barii Iodidi, gr. iv;
Adipis, ℥j.
Fiat unguentum.

For scrofulous swellings. BIETT.

875. *Ointment of Iodide of Cadmium.*

℞. Cadmii Iodidi, ℥ss;
Ætheris, ♏xl.
Tere simul, et adde—
Adipis, ℥j.
Misce, fiat unguentum.

Used in cases of enlarged glands, and nodes, and for chronic inflammation of the joints. This does not stain the skin like iodine or iodide of lead, and is not gritty like the ointment of iodide of potassium. A. B. GARROD.

876. *Ointment of Iodide of Iron.*

℞. Ferri Iodidi, ℥jss;
Adipis, ℥j.
Fiat unguentum.

877. *Ointment of Iodide of Sulphur.*

℞. Sulphuris Iodidi, gr. xxv;
Adipis, ℥j.
Fiat unguentum.

Used in diseases of the skin. MAGENDIE.

878. *Ointment of Iodide of Arsenic.*

℞. Arsenici Iodidi, gr. iij;
Adipis, ℥j.
Fiat unguentum.

Used in lepra, impetigo, and other cutaneous affections. BIETT.

879. *Ointment of Iodine and Calomel.*

℞. Iodinii, gr. x;
Hydrargyri Chloridi Mitis, gr. xv;
Adipis, ℥j.
The iodine to be first united to the lard, and then the calomel added.

MM. Planck and Soubeiran, by whom this ointment is pro-

posed, state that these are the only proportions that can be used, without leading to decomposition.

880. *Ointment of Iodide of Mercury and Morphia.*

℞. Hydrargyri Iodidi Viridis, gr. vj;
Morphiæ Acetatis, gr. viij;
Adipis, ℥j.
Fiat unguentum.

Recommended by the French physicians in glandular swellings. The morphia is supposed by them to prevent the unpleasant effects of iodine when used as an ointment.

PELLETAN.

881. *Ointment of Red Iodide of Mercury.*

℞. Hydrargyri Iodidi Rubri, ʒj;
Adipis, ℥jss.
Fiat unguentum.

Used to accelerate the cicatrization of inveterate venereal ulcers.

882. *Another Form.*

℞. Hydrargyri Iodidi Rubri, gr. xv;
Adipis, ℥ij;
Olei Limonis, ♏xx.
Fiat unguentum.

Employed as a curative application to syphilitic tubercles, chronic ulceration, and venereal eruptions. Its great activity requires caution in its use. RATIER.

883. *Compound Ointment of Red Iodide of Mercury.*

℞. Hydrargyri Iodidi Rubri, gr. vij;
Potassii Iodidi, ʒj;
Adipis, ℥j.
Fiat unguentum.

Used for the discussion of glandular and other tumors.

C. C. HILDRETH.

884. *Ointment of Ioduretted Iodide of Potassium with Opium.*

℞. Iodinii, gr. xvj;
Potassii Iodidi, ℥j;
Tincturæ Opii, f℥ij;
Adipis, ℥ij.
Fiat unguentum.

Applied to scrofulous and other ulcers. LUGOL.

885. *Ointment of Cyanide of Mercury.*

℞. Hydrargyri Cyanidi, gr. xij ;
Adipis, ℥j.
Fiat unguentum.

Used in herpes attended by inflammation and itching.

886. *Mercurial Ointment with Camphor.*

℞. Unguenti Hydrargyri, ℥j ;
Camphoræ, ℥j.
Misce.
Signa.—One drachm of this ointment to be rubbed on the inside of the thighs, before the fire.

Used for buboes and venereal diseases.

Some physicians recommend the warm-bath before using the ointment, while others consider it useless. We think the practice occasionally beneficial. The hands of the person rubbing it on should be enveloped in a bladder, or gloves made of oiled silk. B. Ellis.

887. *Ointment of White Precipitate, Sulphur, &c.*

℞. Hydrargyri Ammoniati, gr. xv ;
Potassæ Nitratis, ℥ss ;
Sulphuris Sublimati, ℥j.
Tere simul et adde—
Adipis, ℥ij.
Fiat unguentum.

This ointment has long been celebrated in the cure of itch.

888. *Compound Sulphur Ointment.*

℞. Sulphuris Sublimati, ℥viij ;
Hydrargyri Ammoniati, ℥ss ;
Hydrargyri Sulphureti Rubri, ℥ss.
Tere simul et adde—
Olei Olivæ, ℥iv ;
Adipis, ℔j ;
Creasoti, ♏xx.
Misce.

This ointment is employed in the London Hospital for Diseases of the Skin, in the treatment of scabies, favus, and ringworm. Startin.

889. *Anti-herpetic Ointment.*

℞. Hydrargyri Sulphatis Flavæ, ʒj ;
Tincturæ Opii, fʒj ;
Sulphuris Sublimati, ʒss ;
Adipis, ʒj.
Fiat unguentum.

In herpes, alternated with the simple water-bath.

890. *Sulphur Ointment.*

℞. Adipis, ℔j ;
Olei Bergamii, fʒij ;
Sulphuris Sublimati, ʒviij.
Fiat unguentum.

Used by friction, three to six drachms at a time, in itch.

891. *Mercurial Cerate.*

℞. Unguenti Hydrargyri, ʒiv ;
Cerati Adipis, ʒx.
Fiat ceratum.

A dressing for venereal ulcers. RATIER.

892. *Ointment of Cyanide of Potassium and Chloroform.*

℞. Potassii Cyanidi, partes x ;
Chloroformi Venalis, partes xij ;
Adipis, partes lx.
Fiat unguentum.

Recommended in hemicrania and facial neuralgia.

A portion to be well rubbed into the skin over the seat of suffering. CAZENAVE.

893. *Ointment of Belladonna.*

℞. Extracti Belladonnæ, ʒij ;
Glycerinæ, fʒij ;
Adipis, ʒij.
Misce.

Employed as a direct application to the neck of the uterus, in cases of rigidity.

894. *Ointment of Alum, Calomel, &c.*

℞. Hydrargyri Chloridi Mitis, ℥ij ;
Aluminis exsiccati,
Plumbi Oxidi, āā ℥ss ;
Olei Terebinthinæ, f℥ij ;
Unguenti Adipis, ℥jss.
Fiat unguentum.

This ointment is particularly adapted to *tinea capitis*. It should be applied every night going to bed, and washed off in the morning. As soon as the child's head is dry, dust it over with powdered starch, which, in the evening, is again to give place to the ointment. The hair must be cut off previous to the application of the ointment. S. G. Morton.

895. *Ointment of Calomel and Sulphate of Zinc.*

℞. Hydrargyri Chloridi Mitis,
Zinci Sulphatis, āā ℥ij ;
Adipis, ℥j.
Fiat unguentum.

Used in the Royal Free Hospital, London, in the treatment of condylomata. V. De Meric.

896. *Ointment of Oxide of Zinc.*

℞. Zinci Oxidi, ℥j ;
Adipis Benzoati, ℥j.
Fiat unguentum.

This is a mild and very useful ointment for scalds, superficial inflammations, ulcers, &c.

897. *Kentish's Ointment.*

℞. Cerati Resinæ, ℥ij ;
Olei Terebinthinæ, f℥ij.
Fiat unguentum.

This preparation has long been celebrated in burns and scalds. Care is requisite to avoid touching the sound skin, for turpentine occasionally inflames it severely.

898. *Ointment of Bromide of Potassium.*

℞. Potassii Bromidi, gr. xxx ;
Adipis, ℥j.
Fiat unguentum.

Used for scrofulous tumors.

899. *Ointment with Goulard's Cerate, Calomel, &c.*

℞. Cerati Plumbi Subacetatis,
Cerati Adipis, āā ℥ss ;
Hydrargyri Chloridi Mitis,
Pulveris Opii, āā ℥j.
Misce.

Useful in various cutaneous eruptions.

JOSEPH PARRISH.

900. *Ointment of Rhubarb, Opium, &c.*

℞. Pulveris Rhei, gr. x ;
Pulveris Opii, gr. v ;
Unguenti Adipis, ℥jss.
Fiat unguentum.

In indolent ulcers.

901. *Ointment of Tar, and Citrine Ointment.*

℞. Unguenti Picis Liquidæ, ℥j ;
Unguenti Hydrargyri Nitratis, ℥ss.
Fiat unguentum.

In tinea capitis.

902. *Ointment of Tar and Opium.*

℞. Pulveris Opii, ℥ij ;
Unguenti Picis Liquidæ, ℥j.
Fiat unguentum.

For hemorrhoids.

903. *Ointment of Oil of Cade.*

℞. Olei Juniperi Oxycedri Pyrolignei, ℥j ;
Olei Anisi, gtt. iij ;
Adipis, ℥ij.
Fiat unguentum.

The oil of cade is an empyreumatic product obtained by the destructive distillation of the Juniperus Oxycedrus.

It has proved highly beneficial in many forms of skin disease, especially in eczema and tinea. DEVERGIE.

904. *Kirkland's Neutral Cerate.*

℞. Emplastri Plumbi, ℥iv ;
Olei Olivæ,
Cretæ Præparatæ,
Acidi Acetici Diluti, āā ℥ij ;
Plumbi Acetatis, ℥jss.

The plaster and oil are first to be melted over a gentle fire. The prepared chalk is then to be briskly stirred in, and when the mixture is sufficiently cooled, the acetic acid and acetate of lead are to be added, and the whole stirred until nearly cold.

This non-officinal cerate is well adapted to abraded irritable surfaces, and the later stages of burns.

905. *Aromatic Compound Sulphur Ointment.*

℞. Potassæ Carbonatis, ℥ss ;
Aquæ Rosæ, f℥j ;
Hydrargyri Sulphureti Rubri, ℥j ;
Olei Bergamii, f℥ss ;
Sulphuris loti,
Adipis, āā ℥x.

Misce secundum artem.

Used in scabies. BATEMAN'S *Synopsis.*

906. *Naphthaline Ointment.*

℞. Naphthalinæ, ℈ij ;
Adipis, ℥j.

Fiat unguentum.

Recommended by Dr. Lodge, in the treatment of itch. Dr. Emery has found it effectual in cases of dry tetter, lepra, and psoriasis.

907. *Ointment of Carbonate of Ammonia.*

℞. Ammoniæ Carbonatis, ℥ss ;
Unguenti Adipis, ℥ss ;

Fiat unguentum.

Applied to indolent ulcers of a scrofulous character.

908. *Ointment with Verdigris, &c.*

℞. Cupri Subacetatis,
Cupri Sulphatis,
Hydrargyri Oxidi Rubri, āā ℥ij ;
Hydrargyri Chloridi Corrosivi, ℥j ;
Adipis, ℥v.

Fiat unguentum.

This may be spread on lint, and one or two applications will be sufficient to destroy a very large mass of fungous granulations. B. C. BRODIE.

909. *Ointment of Ipecacuanha.*

℞. Pulveris Ipecacuanhæ, ℥ij;
Olei Olivæ, f℥ij;
Adipis, ℥ss.
Misce, et fiat unguentum.

Useful as a counter-irritant. TURNBULL.

910. *Ointment of Calomel and Tar.*

℞. Hydrargyri Chloridi Mitis, ℥j;
Unguenti Cetacei, *Lond.*, ℥j;
Unguenti Picis Liquidæ, ℥ss.
Fiat unguentum.

Used in lepra. A. T. THOMSON.

911. *Ointment of Creasote and Charcoal.*

℞. Creasoti, f℥ss;
Alcoholis, f℥jss;
Carbonis Animalis purificati, ℥j;
Unguenti Cetacei, *Lond.*, ℥jss.
Fiat unguentum.

Used in cases of burns and scalds. "For children under five years, the ointment should be weakened by mixing it with four times its bulk of spermaceti; for children from five to ten years, with twice its bulk of spermaceti; and so on, gradually increasing the strength of the ointment according to the age of the patient." S. SUTRO.

912. *Oxide of Silver Ointment.*

℞. Argenti Oxidi, ℥j;
Unguenti Adipis, ℥j.
Fiat unguentum.

Used for sore nipples.

913. *Ointment of Slaked Lime, Zinc, &c.*

℞. Calcis Hydratis, ℥j;
Camphoræ, ℈j;
Unguenti Zinci Oxidi, ℥j.
Fiat unguentum.

This is the "topique contre acne" of the
HÔPITAL ST. LOUIS.

914. *Depilatory Ointment.*

℞. Sodæ Carbonatis, ℥ij;
Calcis, ℥j;
Adipis, ℥j.
Fiat unguentum.

Used in porrigo. BIETT.

915. *Veratria Ointment.*

℞. Veratriæ, gr. x;
Acidi Acetici, ♏x;
Adipis, ℥j.
Fiat unguentum.

Veratria has been used externally in neuralgia, in twitching and drooping of the eyelids, and in other nervous disorders, with the most marked success.

916. *Veratria and Morphia Ointment.*

℞. Veratriæ,
Morphiæ Sulphatis, āā gr. x;
Adipis, ℥j.
Fiat unguentum.

Used in incontinence of urine, by rubbing a portion of the ointment on the perineum three times daily.

T. KENNARD.

917. *Ointment of Nitrate of Silver.*

℞. Argenti Nitratis, ℥ss;
Adipis loti, ℥ss.
Fiat unguentum.

Used to smear over bougies in the treatment of gonorrhœa.

MACDONALD.

918. *Ointment of Tannin.*

℞. Acidi Tannici, ℥j;
Glycerinæ, ♏l;
Adipis, ℥j.
Fiat unguentum.

Used for the same purposes as the astringents generally.

919. *Ointment of Tannate of Lead.*

℞. Plumbi Tannatis, ℥j;
Unguenti Aquæ Rosæ, ℥j.
Fiat unguentum.

A sedative and astringent application to sore nipples, chapped surfaces, &c. M. Leon.

POWDERS.

Sometimes the practitioner prefers dusting medicinal agents directly upon diseased surfaces, instead of incorporating them with lard in the form of an ointment. Hundreds of such formulas might be given, but we limit our selection to two or three.

920. *Powder of Verdigris and Calomel.*

℞. Cupri Subacetatis,
Hydrargyri Chloridi Mitis, āā ℈j.
Fiat pulvis subtilissimus.

For chancres and indolent ulcers.

921. *Powdered Rhubarb and Ipecacuanha.*

℞. Pulveris Rhei,
Pulveris Ipecacuanhæ, āā ℥j.
Fiat pulvis.

To be dusted on sarcomatous and watery tumors.

Rhubarb alone forms an excellent application to indolent ulcers.

922. *Powder of Savin and Verdigris.*

℞. Pulveris Sabinæ,
Cupri Subacetatis, āā ℥j.
Fiat pulvis.

To be dusted on sores accompanied with fungous excrescences.

923. *Powder of Sanguinarina.*

℞. Sanguinarinæ Sulphatis, ℥j.
Tere in pulverum.

Employed for the removal of venereal warts, by dusting the surface of the warts thickly with the powder, and then applying collodion to retain the powder in direct contact with the skin.

G.—CATAPLASMS.

924. *Bread-and-Milk Poultice.*

Remove the crust from a part of a loaf of stale bread, and crumble the bread into a bowl. Pour over it sufficient sweet milk to cover it, and simmer over a fire, occasionally stirring, until the bread is reduced to a pulpy consistence. The poultice is to be applied as warm as the patient can bear it.

Water may be substituted for the milk without much if any disadvantage.

925. *Flaxseed Meal and Bran Poultice.*

Take equal parts of ground flaxseed and bran. Pour boiling water upon them, and stir constantly until the poultice has a pulpy consistence.

In the Northern and Middle States it is customary to use the common flaxseed meal, which contains both the oily and mucilaginous principles; but in New York city and some other places, the ground oil-cake is preferred. Equal parts of the latter and bran form an elegant poultice.

926. *Mush Poultice.*

This is made by stirring Indian meal, in small quantities, into water kept boiling in a pan, until the whole has acquired the proper degree of consistence.

927. *Yeast Poultice.*

℞. Farinæ, *Ed.*, ℔j;
Fermenti, Oss.
Misce.

This cataplasm is useful in stimulating foul ulcers and gangrenous wounds, and removing the unpleasant odor. It should be made with fresh yeast, and applied warm.

928. *Charcoal Poultice.*

This cataplasm is made by stirring into the common bread-and-milk poultice as much finely powdered charcoal as it will bear. It is a very useful application to offensive ulcers; removing in a short time the fetor, and giving them a more healthy aspect.

929. *Slippery Elm Poultice.*

This poultice is made from the inner bark of the slippery elm, ground into a fine powder, and moistened with hot water.

Cataplasms are also made of carrots or turnips, by simply boiling them to softness, and beating them to a pulpy mass. Either furnishes a good poultice for cancerous and other painful sores.

930. *Emollient Cataplasm.*

℞. Lini Farinæ,
Hordei Farinæ, āā partes æquales;
Aquæ, q. s. ut fiat cataplasma.

The water may be warmed if desirable. Applied to inflammatory tumors. HÔTEL DIEU.

931. *Antiseptic Cataplasm.*

℞. Cataplasmatis Emollientis (*vide supra*, 930), ℥viij;
Pulveris Kino,
Camphoræ, āā ʒij.
Fiat cataplasma.

Applied to unhealthy wounds and ulcers. HÔTEL DIEU.

932. *Resolvent Cataplasm.*

℞. Cataplasmatis Emollientis (*vide supra*, 930), ℥iv;
Plumbi Acetatis, ʒj;
Ammoniæ Muriatis, ʒss.
Fiat cataplasma.

Applicable to tumors that require gentle stimulation.
RATIER'S *Formulary.*

933. *Cataplasm of Common Salt, &c.*

℞. Lini Farinæ,
Micæ Panis, āā partes æquales.
Misce, dein adde gradatim—
Liquoris Sodii Chloridi saturati, q. s. ut fiat cataplasma.

To be applied to indolent strumous swellings, and enlargements of the joints. When it produces irritation or inflammation, the common bread-and-milk poultice must be substituted; and the other reapplied when circumstances permit.

934. *Iodine Cataplasm.*

℞. Tincturæ Iodinii, f℥ss;
Lini Farinæ, ℥j;
Avenæ Farinæ, ℥iij;
Aquæ q. s. ut fiat cataplasma.

Applied to indolent ulcers (especially those of a scrofulous character), and to tumors of the same class.

H.—BATHS.

The ordinary application of cold, tepid, and shower-baths, is too well known to require any particular notice. The hot bath should be of a temperature of 93 to 96 degrees of Fahrenheit. It is designed to alleviate general or local irritation, and to induce repose and sleep. It is especially adapted to fevers with deficient capillary circulation, rheumatism, herpetic eruptions, paralytic affections, &c. The lower temperature is best adapted to cutaneous complaints, and to bring on relaxation of the skin during febrile irritation; the warmer temperature is suited to paralysis; and, as a general rule, more heat is desirable to act upon deep-seated than on superficial diseases.

Vapor Baths are produced by the evaporation of boiling water in a suitable apparatus. They are used, like ordinary warm baths, in rheumatic and cutaneous affections, and in every case wherein profuse perspiration is desirable. They are avoided in persons laboring under pulmonary or cardiac disease, and in exhaustion from any cause.

Local Baths are admirably adapted to parts which are swelled and painful, and may consist of tepid water only, or their strength may be increased by the addition of saline, emollient, narcotic, or stimulant substances. Among these salt and mustard are preferable.

935. *Sulphurous Water, or Artificial Bareges Bath.*

℞. Potassii Sulphureti, ℔j;
Aquæ, Cong. xxx.
Solve.

In cutaneous eruptions.

936. *Sulphureo-gelatinous Bath.*

℞. Potassii Sulphureti, ℥iv ;
Aquæ, Cong. xxx.
Fiat solutio et adde—
Ichthyocollæ, ℔j.
In Aquæ bullientis, ℔x solutæ.

This bath, according to Dr. Green (*Diseases of the Skin*, p. 240), "is preferable to the artificial Bareges bath, as it is neither irritating nor apt to occasion feverishness, which the common sulphurous water-bath is. A cheaper and not less efficacious gelatine may be procured by dissolving from a pound and a half to two pounds of parchment-clippings in water by long boiling, or by using a neat's or a calf's foot for the purpose."

937. *Emollient Bath.*

℞. Glycerinæ, ℥j ;
Pulveris Tragacanthæ, ℥j ;
Aquæ tepidæ, Cong. xv.
Misce.

Useful in prurigo, eczema, lichen, impetigo, and other forms of cutaneous disease. HOSP. *for Skin Diseases.*

938. *Nitro-muriatic Acid Bath.*

℞. Acidi Nitrici, f℥ij ;
Acidi Hydrochlorici, f℥iij ;
Aquæ, Cong. ijss.
Misce.

Used for syphilitic affections, and various obstinate skin diseases. ST. GEORGE'S HOSP.

939. *Corrosive Sublimate Bath.*

℞. Hydrargyri Chloridi Corrosivi, ℥ij ;
Aquæ tepidæ, Cong. xxx.
Solve.

Prescribed by the French physicians in syphilitic affections, when it is desirable to avoid the action of the medicine on the stomach. This plan is seldom resorted to, on account of the great risk of employing corrosive sublimate in such large quantity.

940. *Alkaline Bath.*

℞. Potassæ Carbonatis Impuræ, ℥viij;
Aquæ tepidæ, Cong. xxx.
Solve.

For promoting desquamation from the skin, and to allay itching in various forms of prurigo.

941. *Iodureted Baths.*

	No. 1.	No. 2.	No. 3.
℞. Iodinii,	℥ij.	℥iij.	℥iv.
Potassii Iodidi,	℥iv.	℥v.	℥viij.
Aquæ destillatæ,	f℥vj.	f℥vj.	f℥vj.

Fiant solutiones.

One of these solutions, according to the strength required, is added to a tepid bath in a wooden tub. For children, the drachms may be reduced to scruples. Used in scrofula.

942. *Artificial Harrowgate Bath.*

℞. Sodii Chloridi, ℔ij;
Magnesiæ Sulphatis, ℥iij;
Potassii Sulphureti, ℔j;
Aquæ, Cong. xxx.
Solve.

I.—FOMENTATIONS.

Fomentation is a more restricted mode of applying fluids to the surface of the body, and is best accomplished by means of a sponge, flannel, or soft cloth. To be efficacious it should be often repeated.

943. *Stimulant Fomentation.*

℞. Vini Portensis, Oij;
Mellis, ℥iv.
Misce.

This is an active fomentation, adapted to parts in a low state of vitality. RATIER.

944. *Saponaceous Fomentation.*

℞. Alcoholis, Oij;
Saponis, ℥j.
Misce.

A resolvent in indolent tumors and in sprains. RATIER.

945. *Anodyne Fomentation.*

℞. Extracti Opii, ℥j ;
Aquæ, Oj.
Solve.

For painful affections of the joints, as chronic rheumatism, &c.
RATIER.

946. *Fomentation of Bittersweet and Poppy.*

℞. Dulcamaræ, ℥ij ;
Papaveris, ℥ij ;
Aquæ ferventis, Oj.
Fiat infusum.

Employed as a soothing application to irritable surfaces.

947. *Mustard Fomentation.*

℞. Sinapis Farinæ, ℥iv ;
Aquæ ferventis, Oj.
Misce.

By wetting cloths in this fluid and applying them to the skin, irritation may be prolonged to any requisite degree.

948. *Tobacco Fomentation.*

℞. Tabaci, ℥ij ;
Aquæ ferventis, Oj.
Misce.

Employed in psora, but is apt to produce nausea and vomiting. Its use requires great care.

K.—FUMIGATIONS.

Fumigations are for the most part used to purify infected air by absorbing or otherwise counteracting deleterious gases. They are also employed in diseases of the skin, and may be sometimes substituted for a local bath.

949. *Fumigation with Sulphur, Cinnabar, and Iodine.*

℞. Sulphuris Præcipitati, ℥iij ;
Hydrargyri Sulphureti Rubri, ℈ij ;
Iodinii, gr. x.
Fiant pulveres, vj.

One of the powders to be used in the following manner: "If the disease is seated on the limbs, a tin case, or even a common jar, should be procured. A heated iron is to be placed at the bottom of this apparatus, with a grating above it to protect the foot or hand. One of the powders being placed on this heated iron, the limb is to be instantly put into the bath, the top of which should be covered over, to prevent the vapor from escaping. The limb may be continued in the bath from fifteen to twenty minutes, according to circumstances." Used in lepra. T. H. BURGESS.

950. *Mercurial Vapor Bath.*

℞. Hydrargyri Oxidi Nigri, ʒj;
vel
Hydrargyri Oxidi Rubri, ʒj;
vel
Hydrargyri Sulphureti Rubri, ʒj.

Place the mercurial upon a plate suspended over a spirit-lamp; and suspend a small vessel containing boiling water over a second spirit-lamp. Both are to be deposited under a chair, on which the patient is seated, having an oil-cloth or a coverlet thrown around him in such wise as to envelop the apparatus, chair, and his entire person, excepting the face. When the lamps are lighted, mercurial fumes and steam are both generated, and mercury is thus directly applied to the whole surface of the body in a moist state. The bath should not continue longer than twenty minutes, when the patient should be rubbed dry and be removed to bed.

This plan of medication is particularly serviceable in the treatment of constitutional syphilis, and obstinate skin diseases.
L. PARKER.

951. *Chlorine Fumigation.*

℞. Calcis Chlorinatæ, ʒiv;
Aquæ, fʒviij.
Misce et adde gradatim—
Acidi Sulphurici, ʒj.

The irritant properties of chlorine preclude its employment in disease by inhalation, except in occasional cases of aphonia, but it is often used for disinfecting purposes. A small quantity may be set free in a sick-chamber, or the ward of an hospital, to remove offensive odors.

BOOK III.

OF

DIETETIC PREPARATIONS, AND POISONS.

DIETETIC PREPARATIONS AND BEVERAGES FOR THE SICK.

THE importance of an acquaintance with those preparations of diet peculiarly designed for the patient during disease and convalescence, is so obvious that it requires little or no comment. It was remarked by the late Dr. Rush, in his lectures, that a physician should spend six months in a kitchen before entering upon his practical career. As the medical attendant, therefore, is called upon frequently to give directions and rules for preparing the diet for the sick, we have inserted a few formulas for those articles which are in daily use. However apparently trifling such a class may appear, the physician will find that an attention to it will place the patient more completely under his own control, and inspire greater confidence in the relations and attendants. The rules to be observed in giving nourishment to the sick, will generally present themselves; but there is one in particular which should not be overlooked. In all low diseases, the nurse should be directed never to give too much at once, but frequently to repeat a small proportion. The lapse of a very short time without food will frequently, in cases of great prostration, reduce the patient very low, and may endanger his life.

The rule is not intended to be applied to those chronic derangements of the digestive functions which are to be remedied principally by a regulation of diet, and in which the old adage, "a little and often," has too frequently, we are convinced, been perniciously advised.

952. *Barley Water.*

Take of

Pearl Barley, ...	2 ounces,
Boiling Water, ...	2 quarts.

Before adding the boiling water, let the barley be well washed.

Then boil it to one-half, and strain the liquor. A little lemon-juice and sugar may be added, if desirable.

To be taken freely in inflammatory diseases.

953. *Rice Water.*

Take of

Rice,	2 ounces,

Let it be well washed, and add to it—

Water,	2 quarts.

Boil for an hour and a half, and then add as much sugar and nutmeg as may be required. To be taken freely.

Rice, when boiled for a considerable time, assumes a gelatinous form, and, mixed with milk, is a very excellent diet for children. It possesses, in some measure, a constipating property, which may be increased by boiling the milk.

954. *Flaxseed Tea.*

Take of

Flaxseed,	1 ounce,
Boiling Water,	1 pint.

Pour the boiling water on the unbruised seed. Cover the vessel, and stand it near the fire for an hour or two. The seeds must not be crushed or boiled, lest the oil in the interior should be extracted.

Having strained the infusion, add to it a little lemon-juice, if no contra-indicating circumstances exist.

Flaxseed tea is a mild demulcent, and is much used in diseases of the throat, chest, and urinary passages.

955. *Toast Water.*

Cut a slice, half an inch thick, from a loaf of stale bread, remove the crust, and carefully toast the slice on both sides. Place the toast and a small piece of orange- or lemon-peel in a suitable vessel, add a pint of boiling water, cover the vessel, and, when cold, strain off the water.

This forms an agreeable drink in febrile diseases.

956. *Apple Water.*

Slice two large apples, and pour over the slices a pint of boiling water. Infuse for an hour, decant, and sweeten with white sugar.

957. *Currant Jelly Water.*

Boil together equal weights of white sugar and the juice of ripe currants, until the mixture gelatinizes by cooling, as shown by dropping a few drops on a cold plate. Remove the scum, and form the jelly in suitable vessels.

A tablespoonful of this jelly, diffused through half a pint of cold water, makes a delightful acidulous drink, which is much relished by invalids.

958. *Mucilage of Gum Arabic.*

As an article of diet, the proper proportions are an ounce of Gum Arabic to a pint of boiling water. The solution is allowed to cool before it is used.

Gum Arabic is very nutritive, and life can be sustained on it alone for some time.

959. *Bran Tea.*

Take of

Fresh Wheat Bran, ...	1 pint,
Water, ...	3 quarts.

Boil to two quarts, strain off the liquor, and add sugar, according to the taste of the patient.

960. *Sage Tea.*

Take of

The dried leaves of Sage, . . .	half an ounce,
Boiling Water, ...	1 quart.

Infuse for half an hour, and then strain. Sugar and lemon-juice may be added in the proportion required by the patient. In the same manner, balm and other teas may be made.

These infusions form very agreeable and useful drinks in fever, and their diaphoretic powers may be increased by the addition of sweet spirit of nitre or antimonial wine.

961. *Infusion of Malt.*

Take of

Ground Malt, ...	1 pint,
Scalding Water, ...	3 pints.

Infuse for two hours, and strain off the liquor, to which may be added sugar or lemon-juice, if required.

This was a favorite preparation with the late Dr. Joseph Parrish, in inflammatory fevers.

962. *Lemonade.*

Take of

Fresh Lemon Juice,	4 ounces,
Fresh and very thin Peel of Lemon,	half an ounce,
White Sugar,	4 ounces,
Boiling Water,	3 pints.

Let them stand until cold, then strain off for use. When employed in fevers, a little nitrate of potassa or sweet spirit of nitre may be added. It can be further diluted to the taste of the patient.

When fresh lemon-juice cannot be procured, an excellent lemonade can be prepared from lemon syrup made as follows: Dissolve ten drachms of tartaric or citric acid and eight pounds of loaf sugar in a gallon of water. Then rub twenty drops of fresh oil of lemon with a portion of the syrup, and afterwards carefully mix it with the remainder.

Lemonade, when freely taken, sometimes produces pain in the bowels. It must, therefore, be used with some reserve as a daily drink.

963. *Oatmeal Gruel.*

Rub two ounces of oatmeal into a paste with a little water, and gradually add a quart of boiling water. Let the whole boil for fifteen minutes, stirring frequently. Add a little salt, remove from the fire, and sweeten to the taste.

If no reason to the contrary exists, the flavor of the gruel is much improved by adding some nutmeg, with wine or brandy, or a few raisins.

964. *Cornmeal Gruel.*

Indian meal gruel is made in the same manner as oatmeal gruel. It is necessary, however, to boil it a few minutes longer.

965. *Rice Flour Gruel.*

Take of

Ground Rice,	1 ounce,
Cinnamon,	1 drachm,
Boiling Water,	1 quart.

Having rubbed the rice flour into a paste with a portion of the water, add the remainder gradually, and boil for forty minutes, adding the aromatic near the conclusion. Strain and sweeten. Wine may be added, if necessary.

966. *Panado.*

Take of

Wheat Bread,	1 ounce,
Cinnamon,	1 drachm,
Water,	1 pint.

Boil them until well mixed, then add a little grated nutmeg, and sugar. Wine or butter may also be added, if desirable.

967. *Compound Salep Powders* (*Castanello's Powders*).

Take of

Salep,
Tragacanth,
Sago, each four ounces;
Cochineal, thirty grains;
Prepared Oyster-shells, one ounce.

Mix carefully, and divide into powders of a drachm each. Stir one of these powders into a pint of milk, and boil them together for ten or fifteen minutes.

To be drunk freely in dysentery and diarrhœa.

These are the dysenteric powders of Dr. Castanello. A somewhat analogous preparation, sold under the same name, is prepared as follows:

Take of

Gum Arabic,
Tragacanth,
Arrowroot,
Sago,
Tapioca, each two drachms.

Mix them well together, and boil in a pint of milk, flavored with nutmeg or cinnamon.

Used as a diet in dysentery, diarrhœa, &c. &c.

968. *Racahout des Arabes.*

Take of

Dried Cocoa, in powder, ℥iv;
Potato Starch (or Arrowroot),
Rice Flour, each ℥x;
Sugar, ℥xv;
Vanilla, ℥ss.

Mix carefully.

This is prepared for the sick by pouring half a pint of boiling milk on a tablespoonful of the powders, and boiling for a few minutes.

969. *Diabetic or Bran Bread.*

Boil two or three quarts of wheat bran in two successive waters for ten minutes, each time straining through a sieve, and wash well with cold water until the water runs off clear. Squeeze the bran as dry as possible in a cloth, spread it thinly on a dish, and dry it in a slow oven. When perfectly dry, grind it in a mill, and sift it through a fine sieve.

Take six ounces of this ground bran, six eggs, three ounces of butter, and one pint of milk. Mix the eggs with a part of the milk, and warm the butter with the other portion. Then stir the whole well together, adding a little nutmeg or ginger, or any other agreeable spice. Immediately before putting into the oven, stir in seventy grains of bicarbonate of soda; and then six drachms of dilute hydrochloric acid. Bake for an hour or until thoroughly done.

As thus prepared, bran bread contains but a small amount of starchy matter. It has the further advantage of being quite palatable. CAMPLIN.

970. *Sago.*

Take of

Sago,	2 tablespoonfuls,
Water,	1 pint.

Boil gently until it thickens, frequently stirring. Wine, sugar, and nutmeg may be added, according to circumstances.

971. *Tapioca Jelly.*

Take of

Tapioca,	2 tablespoonfuls,
Water,	1 pint.

Boil it gently for an hour, or until it assumes a jelly-like appearance. Add sugar, wine, and nutmeg, with lemon-juice, to suit the taste of the patient and the nature of the case.

972. *Carrageen, or Irish Moss Blanc-mange.*

Take of

Carrageen,	half an ounce,
Fresh Milk,	a pint and a half.

Boil them down to such a consistence as to retain a form when

cold; remove any sediment by filtering, and then add the requisite quantity of sugar, with lemon-juice, or peach-water, to give an agreeable flavor.

The moss, before being used, should be well washed in cold water, to remove its saline taste.

973. *Iceland Moss Jelly.*

Take of

Iceland Moss,	two parts,
Water,	twenty parts.

Boil down to six parts and strain. Then add—

Sugar,	four parts.

Dissolve and set aside to cool.

In consequence of its bitter principle, Iceland moss is more tonic than the other mosses.

974. *Arrowroot.*

Take of

Arrowroot,	1 tablespoonful,
Cold Water,	sufficient,
Boiling Water,	half a pint.

Mix the arrowroot with just sufficient cold water to soften the lumps, then pour on the boiling water, and stir continually until the solution is gelatinous and transparent. Sweeten to the taste and grate in a little nutmeg.

975. *Tous les Mois, or Canna Starch.*

This article is prepared like arrowroot. It is very delicate and valuable as a dietetic agent.

When intended for infants, both this and the arrowroot are rendered more nutritious by the addition of fresh milk to the translucent jelly, made as directed above. In this case, however, it is better to make the jelly more stiff by using a larger quantity of arrowroot, and then reducing it by milk to the proper consistence.

976. *Maizena, or Corn Starch.*

To one quart of boiling milk add gradually four tablespoonfuls of the starch, previously rubbed into a paste with a little cold milk, add some salt and boil for five minutes, stirring briskly. Sweeten to the taste, and flavor with essence of vanilla, lemon, or orange. Then set aside to cool.

977. *Boiled Flour.*

Take of

Fine flour, ... a pound.

Tie it up in a linen cloth as tight as possible, and after frequently dipping it in cold water, dredge the outside with flour till a crust is formed round it, which will prevent the water soaking into it while boiling. It is then boiled until it becomes a hard dry mass.

Two or three tablespoonfuls of this may be grated and prepared in the same manner as arrowroot, for which it forms an excellent substitute.

978. *Vegetable Soup.*

Take one turnip, one carrot, two potatoes, and one onion. Let them be sliced, and boiled in one quart of water for an hour. Add as much salt as is agreeable, flavor with a small portion of potherbs, and pour the whole upon a piece of dry toast.

This preparation forms an agreeable substitute for animal food, and may be given when the latter is inadmissible.

979. *Mutton Broth.*

Select two tender mutton chops, put them into a saucepan, add one quart of cold water and a little salt, cover the pan and cook slowly for two hours. Then skim off all the fat, and add one tablespoonful of rice, one white potato, one turnip, and a little parsley chopped fine. Simmer for three-quarters of an hour, then pour into a bowl and remove the chops and all of the remaining fat.

This broth is nutritious and palatable.

980. *Beef Tea.*

Take of

Lean Beef, cut into shreds, . . . 1 pound,
Water, ... 1 quart.

Boil for twenty minutes, taking off the scum as it rises. Strain the liquor, and add salt according to the taste.

This preparation is more nourishing than ordinary broths, and very palatable.

981. *Liebig's Beef Tea.*

"One pound of lean beef, free of fat, and separated from the bones in the finely chopped state in which it is used for

mince meat, is uniformly mixed with its own weight of cold water slowly heated to boiling, and the liquid, after boiling briskly for a minute or two, is strained through a towel, from the coagulated albumen and fibrin, now become hard and horny. Thus we obtain an equal weight of the most aromatic soup, of such strength as cannot be obtained even by boiling for hours from a piece of flesh." This is to be seasoned to taste. DR. BENEKE.

982. *Essence of Beef.*

Put a sufficient quantity of lean beef, sliced, into a porter bottle to fill up its body, cork it *loosely* and place it in a pot of cold water, attaching the neck to the handle of the vessel by means of a string. Boil for an hour and a half or two hours, then decant the liquor and skim it.

To this preparation may be added spices, salt, wine, brandy, &c., according to the taste of the patient and nature of the disease.

983. *Hartshorn Jelly.*

Take of

Hartshorn Shavings, ...	4 ounces,
Water, ...	1 quart.

Boil over a gentle fire until one pint of the water be dissipated. Strain, and add lemon-juice, sugar, and half a pint of wine.

This forms, either with or without the last-named ingredients, a very nourishing diet for convalescents; and, when mixed with an equal portion of milk, is well adapted to the bowel complaints of children.

Isinglass may be used instead of the hartshorn shavings, if preferred.

984. *Calves' Feet Jelly.*

Take a set of four feet, break them in small pieces, add to them one gallon of water, and reduce by boiling to one quart. Strain, and when cold, skim the fat entirely off. Add to this the shells and white of six eggs, well beaten, a pint of wine, a pound of loaf sugar, and the juice of four lemons, and let them be well mixed. Boil the whole for a few minutes, stirring constantly, and then pass the jelly through a flannel strainer.

This forms a very nutritious article of diet for the sick and convalescent.

985. *Gelatine Jelly.*

Soak one ounce of gelatine for ten minutes in half a pint of cold water; then add the same quantity of boiling water, and stir till the gelatine is dissolved, applying heat, if necessary. Add half a pint of good wine, the peel and juice of two lemons, and sugar, according to the taste. Then add the shell and white of one egg, well beaten together; boil the jelly for five minutes, and strain while hot through a piece of felt or flannel. Set aside in a cool place until the jelly becomes stiff.

This is both palatable and nutritious.

986. *Blanc Mange.*

Boil one ounce of shred gelatine in a quart of milk for ten minutes, stirring constantly. Sweeten to the taste, flavor with peach-water, or essence of vanilla, and strain into a mould.

987. *Chicken Water.*

Take one half of a chicken divested of all fat, and break the bones; add to this half a gallon of water, and boil for half an hour. Strain, and season with salt.

This water is directed by some physicians in the early stages of cholera. Taken warm it promotes vomiting and washes out the stomach.

988. *Chicken Broth.*

Clean half of a chicken, and pour on it one quart of cold water; add a little salt, and one tablespoonful of rice. Cover the vessel closely, and boil for two hours. Throw in near the end of the boiling a little parsley, chopped fine. Skim the broth before using.

This is one of the most valuable articles of diet at the command of the physician in the low stages of disease, when the patient's system requires support, but his digestive powers will not admit of solid food.

989. *Suet Ptisan.*

Take of

Mutton Suet, ...	2 ounces,
Milk, ...	1 pint,
Starch, ...	half an ounce.

Boil slowly for half an hour.

This may be used warm as a common drink in dysentery.

990. *Mucilage of Starch, &c.*

Take of

Starch,	1 ounce,
Powdered Cinnamon,	1 drachm,
Gum Arabic,	1 ounce,
Boiling Water,	3 pints.

Boil until reduced one-third, and strain.

The above may be taken for a common drink in dysentery.

991. *Mulled Wine.*

Take two drachms of bruised cinnamon, half a nutmeg, grated, ten bruised cloves, and half a pint of boiling water. Infuse one hour, strain, and add of hot port, or hot sherry wine (or of good domestic wine), one pint, and white sugar, one ounce. Mix.

This is a mild stimulant drink, used in the convalescence from low forms of disease.

Wine Whey.

(See Formula No. 366.)

Mustard Whey.

(See Formula No. 365.)

992. *Rennet Whey.*

Take of

New Milk,	1 quart,
Rennet,	a large spoonful.

Heat the milk, and then add the rennet. Boil until the curd separates and is all taken off.

To many persons this forms a very agreeable nutriment.

993. *Vinegar Whey.*

Take of

Milk,	1 pint,
Vinegar,	half an ounce.

Boil for a few minutes, and separate the curd.

994. *Tartar Whey.*

Take of

Milk,	1 quart,
Cream of Tartar,	half an ounce.

Boil until the curd separates.

OF POISONS.

Cases of poisoning are so sudden and so awful that no time is to be lost in administering relief. To do this with judgment and effect, it is requisite to be familiar with all the usual antidotes; and of these, we have accordingly selected some which possess an acknowledged efficacy, omitting at the same time many others that are unworthy of confidence. For the purpose of convenience we have arranged the Poisons alphabetically, with the appropriate antidotes attached to each. But, as has been remarked when speaking of Emetics, our chief reliance in these cases is upon free vomiting, induced by those articles which are most speedy in their effect. Dr. Beck prefers sulphate of zinc, whenever it can be procured, and adds, "but if vomiting be present, we may aid it by diluents or a vegetable emetic. Tartrate of antimony should never be given." Yet, even from this treatment, little can be expected when the deleterious substance has remained long in the stomach; and the stomach-tube and syringe will be indispensable.

To protect the stomach and intestines from the direct operation of poisons, it is generally recommended to give milk, lime-water, soap, or drinks sweetened with sugar or honey. Oils and other fatty substances are found to be injurious.

When the vomiting has ceased, and retching and pain continue, Mr. Hume advises the free administration of carbonate of magnesia with tincture of opium, suspended in water.

A general antidote for poisoning, in which the nature of the poison is unknown, consists of equal parts of calcined magnesia, pulverized charcoal, and hydrated peroxide of iron, which are to be diffused in water, and be given freely. Although these articles are simple and innocent in their operation on the system, they will probably prove efficient, as one or another of them is an antidote to most of the mineral poisons.

The albumen of eggs and tannic acid are also general antidotes of great value. The former neutralizing corrosive sublimate and other salts, and the latter precipitating all of the vegetable alkaloids as tannates.

ALCOHOL.

Large quantities of alcoholic liquors, taken by persons unaccustomed to their use, often produce fatal effects.

The treatment in such cases is to evacuate the stomach as soon as possible; but from the rapidity of absorption this may not always be effectual. The patient must be kept roused and cold affusion plentifully used. Large draughts of tea or coffee ought to be taken until the stomach is thoroughly evacuated.

ALKALIES.

Ammonia, *potassa*, *soda*, and their carbonates, are seldom taken in poisonous quantities. When it so happens, the best antidote is common vinegar; it is always at hand, and its affinity for these substances is sufficiently strong to neutralize them. Also, a fixed oil, as olive oil, should be given in large quantity—several pounds being required where a large portion of the alkali has been taken; it acts partly by rendering the vomiting easy and free, and partly by converting the alkali into a soap.

ANTIMONY.

The preparation of this mineral by which poisoning is most commonly produced is *tartar emetic*. This of itself produces violent vomiting, and therefore our first efforts should be directed to keeping up the emesis by means of mild diluents and mucilaginous preparations. Its antidotes are the alkalies, tannin, and astringent vegetable infusions, such as common tea, Peruvian bark, infusion of galls, &c. &c. These decompose the antimonial salt. When the vomiting is excessive, opium by injection will assist in allaying it.

ARSENIC.

Until the present century there was no known antidote to this deadly poison, and the sole dependence of the practitioner was upon mild diluents, albumen (such as the whites of eggs suspended in milk), or warm water and sugar. In the treatment of poisoning by arsenic, it is best first (if vomiting has been delayed) to give an emetic of mustard, or of the sulphate of zinc, and milk should be drunk liberally both before and after vomiting has begun. The patient should never be al-

lowed to exhaust his strength in retching, without some milk or other fluid in his stomach to act on.

THE HYDRATED PEROXIDE OF IRON, freshly prepared, was announced in the year 1834, by Dr. Bunsen, of Göttingen, as an antidote for poisoning by arsenic; and its efficacy has been confirmed by MM. Orfila, Lesueur, Soubeiran, and Miguel, and also in this city by various chemists, and by experiments upon the inferior animals. The antidote is now officinal, and should always be kept on hand.

The following direction will enable the most ignorant person to make use of this antidote until medical advice can be obtained. It must be administered, as soon as possible after the discovery that arsenic has been taken, and as it causes no bad effect itself, should be given EVERY FIVE OR TEN MINUTES, UNTIL ENTIRE RELIEF IS OBTAINED. It is said that twelve parts of it are necessary to neutralize one of arsenic. The dose for a grown person is a tablespoonful; for children a teaspoonful. The bottle TO BE WELL SHAKEN BEFORE EACH DOSE. IN CASES OF EMERGENCY, IT MAY BE PREPARED BY SIMPLY PRECIPITATING THE MURIATED TINCTURE OF IRON, OR A SOLUTION OF THE PERSULPHATE OF IRON, BY AMMONIA, and washing the precipitate.

Should the patient survive (and the probability is in his favor if the antidote be given early and faithfully), the inflammatory symptoms must be combated on the general principles for treating inflammation. The diet should consist exclusively of milk, gruel, cream, rice, and similar bland articles for several days.

In a case of poisoning in this city, where half an ounce of the powdered arsenic had been taken and was followed by extreme thirst and vomiting, all the symptoms were allayed by freely taking the hydrated peroxide of iron. Only a slight gastritis followed, which was readily subdued.

The hydrated oxide forms with the arsenious acid an insoluble salt.

In place of the hydrated oxide, the rust of iron and precipitated carbonate should be resorted to in cases of emergency, possessing as they do, to a certain extent, the power of antidotes. Magnesia, in the gelatinous or hydrated state, if given in large doses, acts also as an antidote, and in several cases lately reported was used with complete success. It can be rapidly prepared by precipitating a solution of Epsom salts by ammonia.

When the poison has been taken in the form of Fowler's solution, Dr. Dunglison recommends copious draughts of lime-

water to be used; but this should not preclude the employment of the hydrated oxide of iron.

BARYTA.

The carbonate of baryta and the chloride of barium are poisonous, and the latter has been taken by mistake for Glauber's salts. In cases of poisoning with either, the alkaline sulphates should be given freely, and resort be had to the stomach-pump and emetics. The true antidote is sulphate of magnesia or soda: with these a sulphate of baryta is formed, which is perfectly insoluble, and may be brought off by emetics and copious diluents, oleaginous or albuminous.

COPPER.

The sulphate (blue vitriol), and subacetate (verdigris), are the salts of this metal from which poisoning most frequently results; the latter often from the careless use of culinary vessels or mineral water fountains.

Vomiting should be encouraged by the free use of tepid water, milk, and mucilages.

According to Orfila, albumen in the form of white of eggs is the best antidote, and sugar, formerly in much repute, acts only as an emollient. In the absence of eggs, milk or wheaten flour should be employed. Vinegar in all cases must be avoided. The French physicians have tried iron-filings, in consequence of the power possessed by this metal of reducing the salts of copper; and the results they obtained, in some experiments performed on animals, are such as to justify considerable confidence in the antidote. The iron decomposes the cupreous salt, and precipitates the copper in a metallic and consequently in an inert state.

GOLD.

The nitro-muriate or terchloride of gold is a powerful poison. Its antidotes are sulphate of iron (which throws down the gold in a metallic state), and albuminous substances, followed by the free use of mucilaginous drinks.

IODINE.

Ten or twenty grains of Iodine sometimes, though not always, produce constriction of the fauces, nausea, vomiting, and severe colic pain. Larger doses endanger life. The best

antidote for its preparations is starch freely given, or, what answers the same purpose, flour mixed with water. Magnesia is also recommended. Vomiting should be induced by mustard or some other prompt emetic.

LAUDANUM.

Laudanum, when taken in large quantity, must be withdrawn from the stomach by active emetics, such as mustard, sulphate of zinc, sulphate of copper, or alum, or by tickling the fauces. The stomach-tube should then be used to remove whatever remains of the laudanum in the stomach. This should be followed by a purgative, to carry off any of the poison that may have entered the bowels. The free use of vegetable astringents and strong coffee will also be serviceable. An important part of the after-treatment is the maintenance of artificial respiration, besides which active stimulants are often required. Iodine, bromine, and chlorine are stated by M. Donné, of Paris, to be antidotes for poisoning by nux vomica and opium. M. Orfila thinks that the decoction of galls may with propriety be used as an imperfect antidote, until the narcotic can be evacuated from the stomach. (See *Opium*.)

LEAD.

The acetate is the only preparation which is resorted to as a poison. The sulphate of magnesia or soda is its true antidote, as it converts the poison into a sulphate, which is inert. The alkaline carbonates and bicarbonates and the phosphate of soda are also good antidotes. If the patient does not vomit, give an emetic of the sulphate of zinc, which will not only empty the stomach, but convert any remaining soluble lead into an insoluble sulphate.

Milk or albumen should also be given in large quantities, as it has been found that the albuminous principle of milk is a very effectual precipitant of the oxide of lead; a compound which, though not entirely inert, is far less active than the acetate, and tends to prevent the action of the poison as a corrosive on the stomach.

MERCURY.

All the preparations of this metal are poisonous, and corrosive sublimate in particular. Our chief and only dependence, according to M. Orfila, is upon the albumen of eggs, copiously swallowed, or introduced through the stomach-tube, which

should be resorted to when the patient cannot swallow or vomit. Enemata of the same should also be used.

If the albumen be taken in sufficient quantities, it decomposes the sublimate, forming a triple compound of albumen, muriatic acid, and calomel. If the remedy excites fresh vomiting, so much the better; and if symptoms of gastritis appear, they are to be treated in the usual way. M. Orfila has also established that a fatal dose of corrosive sublimate may be swallowed by animals with impunity, provided the white of egg, or any other kind of fluid albumen, be introduced shortly before or after into the stomach. Cases are also upon record which establish that it possesses an equal efficacy in man.

The gluten of wheat flour is also strongly recommended on the same principle, as an antidote to corrosive sublimate. To administer it, nothing more is requisite than to mix the flour with water. The quantity taken must be very considerable. It is said to reduce the sublimate to the state of calomel.

Gluten of wheat flour is also given in the form of an emulsion with soft soap, by mixing partly in a mortar and partly with the hand, 5 or 6 parts of fresh gluten with 50 parts of soft soap.

When neither albumen nor gluten is at hand, milk forms a good substitute.

The only other antidotes deserving of mention here are a mixture of two parts of iron filings and one of zinc, meconic acid, and the hydrated proto-sulphuret of iron. The first was recommended by Dumas, and must obviously operate by bringing the mercury to the metallic state. The meconic acid, particularly when combined with an alkaline base, affords, with corrosive sublimate, an insoluble and inert permeconate of mercury. The meconates of the ordinary alkalies, however, can scarcely be obtained in sufficient quantity to be applied to such a purpose; and from the smallness of the saturating power of meconic acid, it would be hazardous to administer the quantity of opium which would be adequate to the decomposition of a few grains of corrosive sublimate, inasmuch as the muriate of morphia, which would be contemporaneously formed, is a narcotic medicine of very considerable energy. The hydrated proto-sulphuret of iron was proposed by Mialhe, and confirmed by Orfila, who says that if it be taken *immediately* after the ingestion of the poison, it completely destroys the poisonous quality of corrosive sublimate.

MINERAL ACIDS.

The first, because the most ready method of counteracting the action of the mineral acids, is the copious use of water, warm or cold, milk, oil, or mucilage, which, by simply diluting them, renders them less acrid, and at the same time assists the stomach in rejecting them. This course should be followed until the proper antidotes are prepared. These are the alkalies, alkaline earths and soaps, common pearlash or carbonate of potassa, carbonate of magnesia, chalk, and soap in solution. Calcined magnesia, though advised by some authors, is objectionable, inasmuch as the rapidity with which it would combine with acid in the stomach, might alone produce inflammation of that organ.

The smallest quantity of nitric acid which is known to have destroyed life is two drachms; the smallest fatal dose of muriatic acid was one ounce.

NARCOTICS.

The remedies employed in all cases of poisoning from this class of substances, are nearly the same, viz., the most active emetics, as sulphate of zinc, alum, and mustard in large doses. In all cases where it is possible, the stomach-tube should be employed. After these evacuations, tannic acid or strong decoctions of tea, coffee, or the vegetable astringents, with cold affusion, are proper. Electro-magnetism is also serviceable, together with brandy, ammonia, and other powerful stimulants, and artificial respiration.

There is no positive antidote to any of the vegetable alkaloids. Tannic acid combines with all of them, and forms salts which are insoluble in water, but are soluble in vinegar and the gastric juice. Hence, the administration of this acid is beneficial, time being gained for the removal of the poison in the form of a tannate from the stomach. If not removed, the tannate will be dissolved by the gastric fluids. After emesis, charcoal may be given freely, as it possesses the singular property of absorbing and retaining coloring matters, vegetable acids, and the alkaloids.

NITRE (*Nitrate of Potassa*).

This salt is sometimes taken in mistake for Epsom or Glauber's salts. When this happens, vomiting should be excited as speedily as possible, followed by the free use of mucilaginous drinks, hot gin-toddy, brandy and water, &c.

As there is no antidote to this poison, in case these means should fail we must resort to the stomach-pump.

OPIUM.

We cannot do better in this place than transcribe what Dr. T. R. Beck, of Albany, says of the antidotes to opium.

"The experiments of Orfila have demonstrated that the administration of vinegar, or rather vegetable acids, previous to the evacuation of the poison by vomiting, will accelerate and aggravate the action of the opium; but that when the opium has previously been expelled, water acidulated with vinegar, or any other vegetable acid, will tend to diminish and correct the effects. Coffee, when prepared in strong decoction or infusion, rapidly lessens the symptoms, but cannot be considered as an antidote. The result of his experiments led him to give the following directions for the treatment of a person poisoned by opium. Induce vomiting, if possible, with sulphate of zinc, or sulphate of copper; but the administration of watery liquids with the view of promoting the vomiting, should be forbidden, as they dissolve the opium and promote its absorption. In order to insure the action of the emetic, the patient must be kept roused by discharging cold water over the head and breast; yet cold affusion must be avoided in the advanced stage, when the body is cold, and the breathing scarcely perceptible. To insure success, in every case the patient must be kept awake, either by dragging him up and down between two men, or by flagellation on the back and soles of the feet. Artificial respiration may be used in desperate cases with propriety. Bleed the patient immediately after the rejection of the poison, and repeat this if necessary. Afterwards administer alternately water acidulated with any vegetable acid and a strong infusion of coffee[1] warmed, and in ten or twelve hours exhibit an enema, and let the arms and legs of the patient be well rubbed. Purgative clysters should be continued, if it be suspected that any of the opium still remains in the large intestines."—Beck, *Med. Jurisprudence*, vol. ii, p. 403.

These remarks are applicable to the poisonous effects induced by other articles of the Narcotic class, as belladonna, hyoscyamus, stramonium, &c. Yet as these are not often taken with suicidal intentions, the quantity is seldom inordinately large. Emetics, if given soon after the poison

[1] Dr. H. F. Campbell reports a case in which an injection of twenty grains of caffein in an infusion of coffee was attended with the happiest effect.

has been swallowed, will at least remove a part of it; after which the practitioner must necessarily be governed in the treatment by the nature of the peculiar poison, the amount taken and the patient's constitution. Stimulants are occasionally necessary from the first; in other instances, depletion: but more frequently, each is in turn called for.

As belladonna and opium manifest a different, and in some respects an opposite effect upon the brain, they have been recommended as antidotes to each other in cases of poisoning. This recommendation, however, should not interfere with the measures above described. It may be received as an adjuvant, but not as a substitute for the usual plan of treatment.

OXALIC ACID.

Death from this poison is generally sudden. Lime-water or a mixture of chalk and water is recommended by Dr. Thompson, for the purpose of converting the acid into oxalate of lime. The carbonate of magnesia, also, has been found by experiment to counteract the poison; but the alkalies must be avoided, as they act with an energy little inferior to the acid itself.

It is advisable to avoid giving *warm water* with a view to accelerate vomiting; for dilution promotes the absorption of the poison.

PHOSPHORUS.

This substance acts so immediately and so powerfully in decomposing the animal tissues, that no available antidote has hitherto been suggested. A small portion is sufficient to destroy life. Nevertheless, large quantities of mild demulcent liquids should be exhibited to shield the alimentary canal, and magnesia to neutralize the phosphorous and phosphoric acids which may be formed.

PRUSSIC ACID.

This deadly poison, in its purity, acts with such rapidity as to leave no time for the administration of antidotes. When taken in small quantities, much diluted, its action is less rapid, producing symptoms of excessive prostration, convulsions and coma. Cold affusion to the head has been found very effectual in such cases, and when applied before the convulsive stage has passed, has often succeeded. The head should be kept elevated, and the water poured from a height upon the occiput and spine. The inhalation of ammonia is the antidote most

to be relied on, many experiments having proved its efficacy. It should not be used of too great strength, which would endanger inflammation of the air-passages and stomach; the strong aqua ammonia, diluted with twelve parts of water, is recommended by Orfila.

Chlorine also possesses strong claims as an antidote, and from the results of his experiments, is believed by Orfila to be the best which has yet been proposed.

In all cases, artificial respiration should be kept up while there is a hope of sustaining or restoring life.

Ether and chloroform have been recommended, and no doubt will eventually prove of great value from the rapidity with which they act.

Cases of poisoning with the oil of bitter almonds, cherry laurel water, and other substances containing Prussic acid, are not unfrequent, particularly among children. After evacuating the stomach, these require the same treatment as for Prussic acid.

SILVER.

The nitrate of this metal is sometimes taken by mistake; its antidote is common salt, largely given, with copious draughts of mucilaginous drinks to promote vomiting. The salt produces an insoluble chloride, which has no power on the system.

TIN.

When any of the salts of tin are taken, albumen of eggs, flour, or milk given freely, is the appropriate remedy. Milk forms a coagulum with the chloride of tin (*Dyer's spirit*), and renders it innoxious. Lime-water or the alkalies would decompose this salt and thus render it inert.

VEGETABLE POISONS.

See "Narcotics," and "Opium."

ZINC.

The sulphate of this metal is occasionally taken in an overdose. Warm water and emollient drinks are proper in such cases; but milk is particularly useful, from its power of decomposing the sulphate; also albumen, magnesia, &c. Vegetable astringents may be beneficially used.

The crystallized sulphate of zinc very closely resembles the sulphate of magnesia, and has been mistaken for it: a fact to be borne in mind by apothecaries and physicians.

APPENDIX.

I. ON THE ENDERMIC USE OF MEDICINES.

"THE science of medicine," says Dr. Gerhard,[1] "has recently received an important auxiliary to its resources, by the discovery that remedial substances, when applied to the cutis, after the removal of the epidermis, produce their peculiar effects with nearly the same energy as if introduced into the alimentary canal. This mode of exhibition, which has received the name of the *endermic method* or *endermic medication*, is always found much more efficacious than the iatroleptic method of Christien, or the administration of medicines by means of frictions on the cuticle."

The endermic method requires the previous separation of the cuticle, which is best effected by a blister about four inches square. The cuticle should then be punctured or removed in very small patches, so that the medicine may come in contact with the vesicated surface. Substances used in this way must be applied in two or three times the quantity requisite when given by the mouth. "The remains of the substance applied are much less than the original quantity, and sometimes no trace of it can be perceived; the whole appearing to be absorbed or mingled with the secretions."

We avail ourselves of Dr. Gerhard's valuable paper for the following facts, in relation to those medicines which act most effectually in the endermic method.

Sulphate of Quinia.—A blister to be applied to the epigastrium during the apyrexia; and if the paroxysm returns before the quinia can be used, defer it until the next apyrexia. Apply four grains of powdered sulphate of quinia (either alone or with an equal quantity of starch), four times a day, for two successive days. A less irritating plan, however, is to dissolve

[1] North Amer. Med. and Surg. Journ., April, 1830.

sixteen grains of the sulphate in two ounces of water, with which the blistered surface is to be repeatedly wet during the day by means of a soft linen cloth. There is no occasion to *remove* the loose epidermis; it is all-sufficient to *puncture* it in several places to allow the solution to touch the denuded surface.

Morphia.—The acetate and sulphate act readily and effectually; the latter is preferable, because more soluble and less irritating. It may be applied in powder, in solution, or in the form of cerate. The dose varies from half a grain to two grains, and its effects are speedily perceptible.

Digitalis.—Dose, two grains three times a day.

Aloes.—This medicine acts on the bowels with nearly the same certainty as if taken internally. Dose, ten grains, to be repeated, if necessary, in a few hours.

Gamboge, owing to its solubility, purges freely in the endermic method. Dose, from five to eight grains.

Rhubarb, *jalap*, *elaterium* and *croton oil*, contrary to what might be expected, do not produce catharsis, although they excite severe local irritation.

Squills.—This medicine in powder, sprinkled on a blistered surface three times a day, in the quantity of four grains at each application, causes copious diuresis. Its power is increased by combination with *digitalis*, in the proportion of four grains of the former to one of the latter.

Emetics from the *vegetable* kingdom all produce their effect in the endermic method; and tobacco does so without any previous irritation of the skin. The same remark is applicable to mercury and iodine, which last is best applied in the form of ointment, made by rubbing a drachm with an ounce of cerate.

Emetics derived from the mineral kingdom exert no specific action. B. E.

II. ON THE USE OF ETHER AND CHLOROFORM.

The employment of anæsthetic agents has now become so general, and their great value so fully attested by many eminent physicians and surgeons in all parts of the world, that we shall here give a brief account of their uses and mode of application.

Indeed, the discovery of a means by which to give complete insensibility to pain during the performance of tedious surgical and dental operations, as well as to mitigate the spontaneous sufferings attendant on many diseases, must be considered

one of the most important in the annals of medicine. That pain is useful in indicating the seat and progress of disease, cannot be denied, yet, on the other hand, its severity may exhaust life; and to allay it is often the most difficult and necessary part the physician is called upon to perform. The inhalation of ethereal substances now gives the practitioner more or less control over these "ills that flesh is heir to," enabling him to alleviate some, and wholly to prevent others.

Notwithstanding the benefit to be derived from its judicious use, the mode of inhalation is also capable of producing much evil in the hands of the unskilful and ignorant; and it should, therefore, be employed by those only who are acquainted with its diversified operation.

Ether and chloroform produce essentially the same effects, but the latter is much the more powerful and rapid in its action.

The progressive stages of etherization seem to be pretty much as stated by Mr. Sibson, viz.:

1. Cerebral excitement.
2. Cerebral derangement, staggering intoxication.
3. Cerebral sleep (sopor); pupils contracted; dreams; reflex functions of the brain and spinal marrow still active.
4. Cerebral death (coma); reflex functions of the medulla and spinal marrow still active.
5. Death of spinal marrow; cessation of respiration (heart's action generally still present).
6. Cessation of heart's action.

He also says: "It is very important to be able to tell easily when the stage of safety—sopor, is about to merge into that of danger—coma. The action of the pupils is the key to this knowledge. Inhalation should not be continued one instant after the pupils, previously contracted, have begun to dilate.

"If unconsciousness can be secured by sopor, the inhalation should not be carried on to produce coma. If complete muscular relaxation be sought for, as in hernia, to facilitate taxis; in dislocation, to make reduction easy; and in tetanus, then it will be needful, in general, to urge the patient from sopor into coma; but as soon as the muscular relaxation is secured, the inhalation should cease. When chloroform or ether is employed in chorea, delirium tremens, or other affections, it should never be urged beyond sopor. In neuralgia, it is not usually needful to produce unconsciousness. Whenever the pain disappears the inhalation ought to cease."

According to Dr. Snow, a necessary precaution for watching the effects of ether and chloroform is, that they possess an accumulative property; their influence sometimes increasing for

twenty seconds after the inhalation is discontinued. It is seldom necessary to carry the process farther than the production of sopor; in this dreamy state insensibility to pain is perfect, and in some persons much earlier. Many patients seem to be perfectly awake to all mental impressions, and even take an interest in the progress of the operation, without feeling the slightest pain, and, indeed, in some instances, experiencing agreeable sensations.

The influence of these agents being transmitted by the blood, pervades the whole system simultaneously, and particularly excites the capillary circulation, as evinced by the injected conjunctiva, increased lachrymal and salivary secretions, and turgidity of the face and neck, the redness of which, however, soon gives place to pallor.

Although used heretofore only to produce general effects, it has lately been discovered by Mr. T. Nunneley, of Leeds, that local anæsthesia may be caused by these agents; and that the brain and other parts of the body not subjected to their influence remain unaffected. After an extensive series of experiments on different animals, he finds that, by immersion in a small quantity of the fluid, or by applying the vapor locally for a limited period, a limb may be rendered perfectly motionless and senseless, and, what may be an additional advantage, fixed in any desired position. The benefits likely to be derived from this new and valuable discovery promise to be very great.

As regards the mode of applying these vapors, the principal thing to be observed is, that they be freely diluted with atmospheric air. Many instruments for inhalation have been invented, but most of them have given place to a simple sponge; and in the case of chloroform, a towel or handkerchief is perhaps as good as anything yet proposed. The degree of etherization does not depend so much upon the amount respired, as upon the peculiar constitution of the individual, and the physician is thus better able to regulate the amount, and judge of its effect. A drachm of *chloroform*, or even half a drachm, poured upon a handkerchief, and gradually brought close to the mouth and nose, will, in about two minutes, more or less, produce the required effect. Of *ether*, half an ounce may be poured upon a sponge, and more added from time to time if required. The full effect of ether is not generally obtained in less than four or five minutes. As regards their comparative merits, it may be said of chloroform that it is less pungent, and requiring a less amount is more easily inhaled: but it is also said to have a greater tendency to produce invol-

untary muscular contraction, and exerts a more direct and powerful action on the heart than ether. As far as present experience goes, ether has been found the milder and safer of the two; and in the case of children, from their greater susceptibility, should always be given in preference to chloroform; etherization, in them, occurring in about two minutes.

According to Dr. Snow, the immunity from pain does not correspond exactly with the degree of narcotism, but is greater as the patient is recovering from the effects of the vapor, than in the corresponding degree, as he is getting under its influence; this is more particularly the case with ether, which he considers to possess superior anæsthetic effects to chloroform in proportion to the narcotism produced. When ether is inhaled, the patient sometimes completely recovers his mental faculties, although insensibility to the operation still continues.

The use of ether or chloroform is contra-indicated by the existence of any disease of the heart, tendency to engorgement of the lungs, or aneurism of any of the great vessels; nor should it ever be used either during the existence of shock resulting from a severe injury.

The existence of extreme debility is not always a contra-indication; for, acting as a stimulant, the inhaled vapor seems to possess a sustaining power, and has been successfully used in a state of great collapse, as well as for its sedative influence in low cases of typhus fever.

Perhaps one of the most important uses of ether and chloroform is that for the relief of stricture, and to render easy the introduction of the catheter; here, in old and sensitive cases, as well as in retention of urine and the passage of calculi, they are invaluable.

The physician in using these vapors should bear in mind that he is administering an agent of great power, of which he must carefully observe the effect; for the life of the patient is in his hands. In some constitutions, six or seven inspirations of chloroform have produced complete insensibility, and we should always be on our guard lest alarming symptoms suddenly supervene. These are marked by suspended respiration, livid skin, widely dilated pupils, the eyes fixed, and the iris immovable. The patient should be immediately laid upon the floor, cold water dashed upon the face, and the vapor of ammonia applied to the nostrils. These will generally restore animation; if, however, respiration has entirely ceased, it will be necessary to bring it about by artificial means. The abstraction of a few ounces of blood from the arm, or from the

jugular vein, will also assist the renewal of the heart's action, by relieving distension.

We should be careful, also, not to endeavor to make the patient swallow anything while in this state of insensibility, as cough might induce suffocation and hasten death.

Besides sulphuric ether and chloroform, various other preparations have been found to possess anæsthetic properties; as Aldehyde, Benzoin, Acetic Ether, Bisulphuret of Carbon, &c., but sufficient experiments have not yet been made to determine their relative value.

As the action of chloroform depends upon its comparative purity, this may be tested by dropping it into the following mixture, viz.: Sulphuric acid at 66° and distilled water, equal parts. When cool, this mixture will have a density by the areometer of 40°. (Sp. gr. 1·38.) Pure chloroform dropped into this liquid will fall to the bottom.[1]

S. G. Morton.

[1] French Journal of Pharmacy, 1848.

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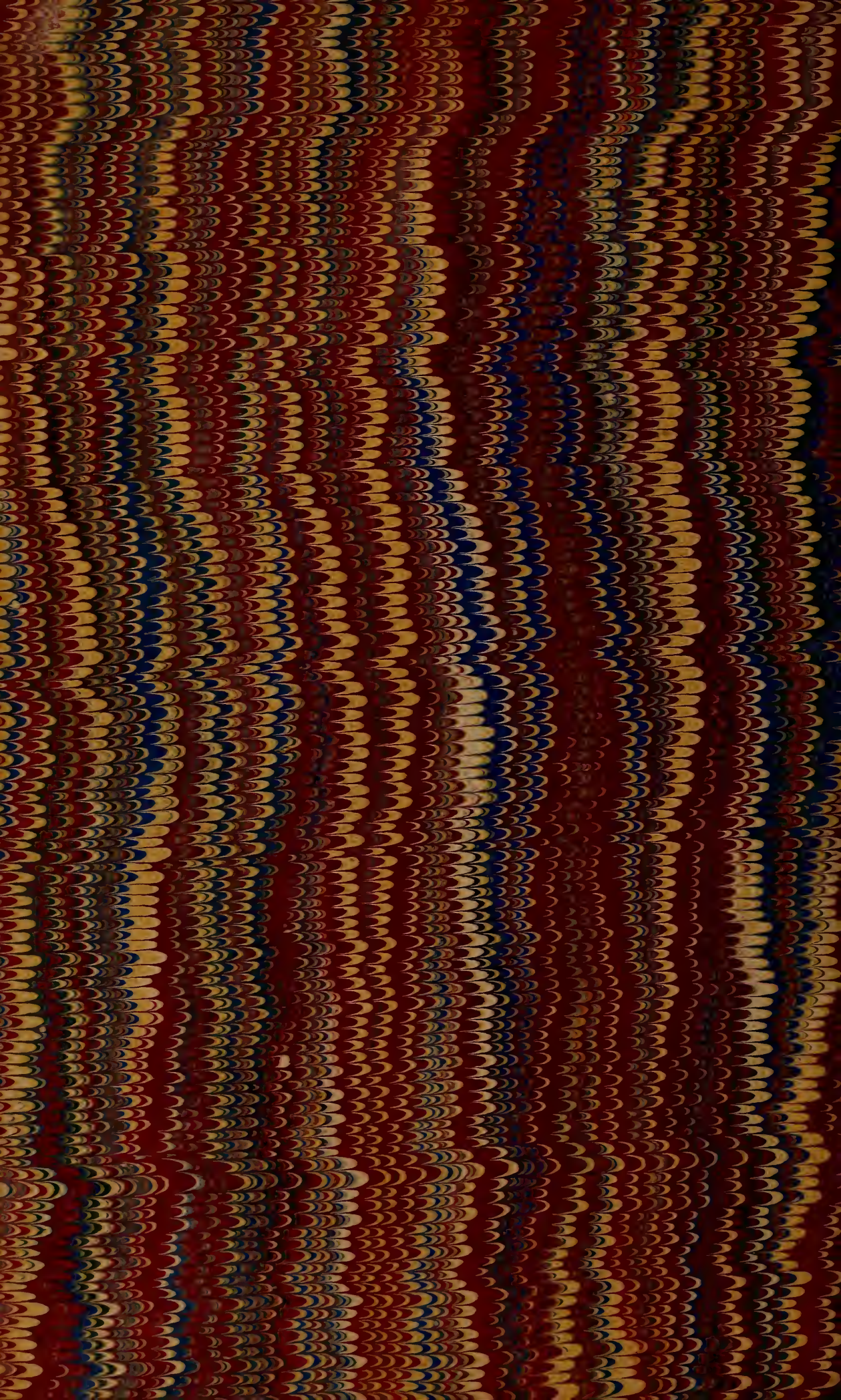

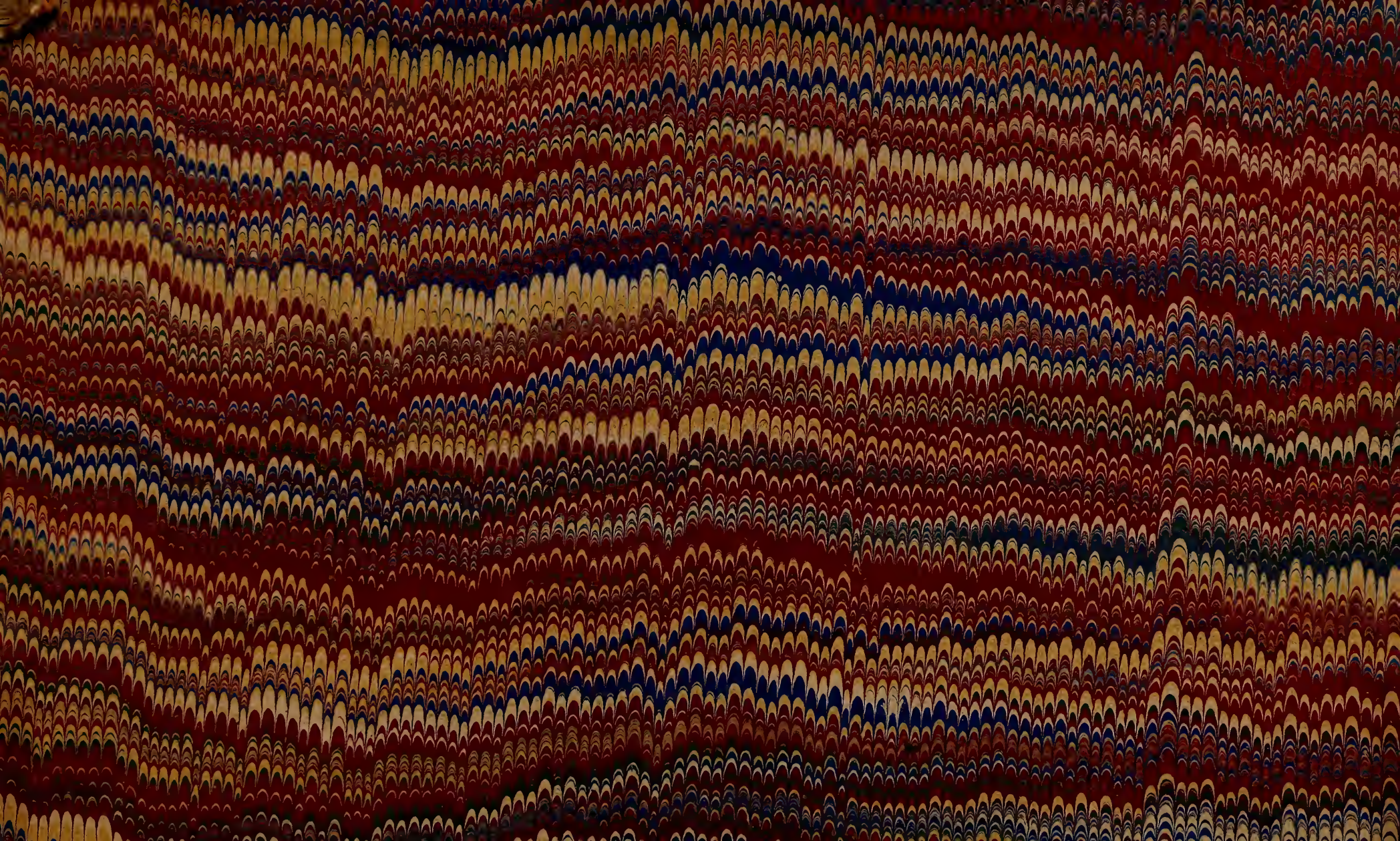

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